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East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2034

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MISUSE OF CHEMICAL FERTILIZERS DEPLORED

Tirana ZERI I POPULLIT in Albanian 3 Jun 80 p 2

[Article by Lefter Veshi, director of Institute for the Study of Agricultural Soils, Tirana: "About the Norms and the Effectiveness of Chemical Fertilizers"]

[Text] Each year, our socialist agriculture uses large quantities of chemical fertilizers which, among other things, have become an important factor in increasing agricultural production. The use of chemical fertilizers in agricultural production has also become more effective from year to year. During the past few years, for every quintal of fertilizer used, an average production increase of 1.56 quintals of wheat, 2 quintals of corn, 0.6 quintals of cotton and 18 quintals of sugar beets have been obtained. Lushnje, Korce, Fier and Berat districts, with the highest yields, had the best indicators of the effectiveness of chemical fertilizers on wheat whereas Tepelena, Vlore, Sarande, Permet and Mirdite districts had lower indicators. Gjirokaster, Librazhd, Berat, Shkoder, Elbasan and Sarande districts have obtained the highest indicators for corn, from 2.50 to 2.25 quintals yield per quintal of fertilizer used. Berat District has ensured a good coefficient of the utilization of chemical fertilizer for the cotton crop.

The vanguard production units have obtained 3-3.5 quintals of wheat and 3-5 quintals of corn per quintal of fertilizer used. The progressive brigades have obtained about 4-4.5 quintals of wheat and 5-6 quintals of corn per quintal of chemical fertilizer, whereas in experiments these figures are still higher, reaching 3-7 quintals of corn per quintal of fertilizer used. What is evident in regard to these indicators?

The average indicators obtained by the districts in the effectiveness of chemical fertilizers are such that they conceal many reserves. The results of districts and units with close or equal production conditions differ, something which is reflected also in the production increase obtained per quintal of chemical fertilizer used. Consequently, much remains to be done, so that from every kilogram of active material used, no less than 10 kilograms of grain can be obtained. In this connection, many factors play a role. Nevertheless, the fact is disturbing that in some units chemical fertilizers are used without criteria. In recent years, some districts have used on each hectare, more nitrogen and phosphorous from chemical fertilizers than was necessary to achieve the planned yield of wheat. In particular, tendencies to use more nitrogen are observed in Sarande, Mat, Tropoje, Puke and Mirdite districts, whereas in Puke, Tropoje, Lezhe and Mirdite districts, phosphorite fertilizers, which are also scarce, are used in excess of the needs for achieving the planned yields.

The increase in the effectiveness of fertilizers is directly related to the intensification of agriculture and to the low cost production of agricultural products. In reality, of the average expenditures per hectare of wheat, 30 percent consist of expenses for the purchase and use of chemical fertilizers. Therefore, the strict implementation of the completed studies becomes necessary, and especially of the agrochemical studies, to further improve the norms and the use of chemical fertilizers, which is an important factor for increasing the effectiveness of their use. Calculations show that for every lek invested in fertilizers, under conditions when for every quintal of chemical fertilizer, 1.6 quintals of wheat are obtained, 2.8 leks are realized, and when the increase is 3 quintals of wheat, the economy ensures 5.3 leks of income per every lek of investments for fertilizers. In the vanguard production economies, for every lek spent for chemical fertilizers 7.80 leks of income are obtained, as a result of the increase of wheat yields. The setting of norms for chemical fertilizers used today in our country relies on the approved guideline for their use on the basis of the accounting method. This method is based on the values of the agrochemical study for every piece of land, on the biological needs of plants, on the planned yields and on the coefficients of the utilization of the elements of the soil and of the fertilizer. Today we have our own data as regards the biological needs and the coefficients of utilization. One ton of wheat, for example, is obtained from 33 kilograms of nitrogen, and 11 kilograms of phosphorous (P2 O5). One ton of corn is obtained from 30 quintals of nitrogen and 10 kilograms of P2 O5. Some 1.3 percent of the nitrogen in the soil is utilized by wheat (in Korce, Lushnje and Fier it is 1.4-1.5 percent, and in Tropoje, Puke, Kukes, Kolonje it is 1 percent) and the figure for corn is 1.7 percent. About 50 percent of the phosphorous in the soil is utilized, while 60 percent of the nitrogen in fertilizers and 20-30 percent of the phosphorous of fertilizers are utilized, depending on the simultaneous implementation of all the other factors of production.

The effectiveness of fertilizers is closely related to the exact implementation of all sections of the agrotechnical code, based on the experimental data of the studies carried out on the soil and the feeding of plants. In this context, the system of crop rotation has its own importance, because all the crops are distinguished by specifics in their dynamics and in their feeding as a whole. But some units use fertilizers in excess of the needs of the soil, not studying the needs of the crops and without taking into consideration the level of their utilization. In other instances, the underevaluation of soil, as a natural treasure, leads to the ineffectiveness of fertilizers. In some units, the yields are planned only by studying the material base. This is not rational, because on the one hand, the soil with its valuable worth is neglected and, on the other hand, in the process of planning production and of incomes, the needs of the biological laws, of the natural sciences and of the political economy are violated and are ignored.

The effectiveness of fertilizers cannot be separated from the use of organic fertilizer, which regulates, stimulates and improves the physical specifics, the soil's resilience, as well as the feeding of the crops, the assimilation of elements, which, in the final analysis, is a living biochemical process.

The effectiveness of chemical fertilizers and setting of their norms in agricultural production is related to the complex of agrotechnical measures, the timely fulfillment of which ensures the obtaining of the calculated yield. It is important to carry out, through complex studies, the improvement of the dialectical unity which links the productive capacity of the soil (which grows continuously) with the regenerative and hereditary capacity of the genetic material. By realizing at the same time that the genotypic specifics of the varieties are quite different in regard to the requirements for fertilizers, it would be possible to determine the norms of fertilizers under various ecological conditions. For illustration we note that on the basis of fixed amounts of nitrogen, phosphorous and potassium, various types of wheat, with increases in the amount of fertilizers, yield increases of 30 to 50 percent, and the various corn hybrids, 30 to 70 percent.

The effectiveness of fertilizers is also related to other important organizational and technical elements. The correct arrangement of crops leads to the realization of a better setting of norms for chemical fertilizers and to their increased effectiveness.

The crops need quantity and quality, but they also need, on a timely basis, the factors of life. And the satisfaction of these needs influences the increase of the effectiveness of chemical fertilizers, but also other agrotechnical measures. For example, if the corn lacks moisture for 4 days during the forming of the ears, production decreases by 50 percent. If the crop lacks phosphorous during the early stages of growth, then any future addition of phosphoric food will not be able to make up for this earlier lack. Therefore, phosphate fertilizer must be applied to corn prior to the sprouting of 5-6 leaves which represents its critical stage. Furthermore, the phosphate fertilization must be carried out in such a way as to lower its level of retrogression.

The effectiveness of chemical fertilizers is related more and more to the implementation of the scientific complex of the struggle against diseases, pests and weeds, which are permanent companions of the genetic material and of the improved species which we grow roday, and to other measures which prevent the sweeping away and the fixation of fertilizers in the soil, which reduce their toxicity, which regulate the structure and the soil reaction and which trigger the beneficial activity of the microorganisms.

So far, in our country the belief has been scientifically formed and clarified that the effectiveness of chemical fertilizers cannot be regarded as detached from other factors, but coordinated with them. Progressive experience and the experimental data from various points of the country constitute material for determining the best variant of the complex of factors to ensure the planned yield, which must be based on the general economic assessment.

Planning yields on the basis of previous calculations, by relying on all factors which determine the production level, serves to eliminate subjectivism. This will make it possible to struggle against these tendencies observed of using, without studying the situation, great quantities of fertilizers in areas under water. The effectiveness of this practice is very low, because other factors--and in the first place, the securing of water--are not realized at the same level at which the fertilizers are procured. Fertilizers are not as effective on swampy, dry and sloping land, on white, black, salty or acid soils, if no measures are taken to eliminate the other factors restricting production. Fertilizers are most effective in the agricultural units which have established a high level of work, where the work for the chemicalization of agriculture is of high quality, and the recommendations of scientific studies regarding quantity, method, the time of use and the increase of their effectiveness are carried out.

As an indicator of the effectiveness of fertilizers, it is time to use the active ingredients of the fertilizer rather than the fertilizer itself as the norm for its use and sale.

From the results of the past few years, in particular 1979, it is evident that for every kilogram of active substance used, we have obtained an average of 6.2 kilograms of bread grains (5.6 kilograms of wheat and 6.8 kilograms of corn) at a time when the possibilities exist for obtaining over 10 kilograms. This is the reserve which, for the time being, remains unutilized in our country. In the brigades, sectors and vanguard economies, especially in the experimental stations of the Institute of Soil Studies in Lushnje, Korce, Gjirokaster, Diber and Tirana districts, for every kilogram of nitrogen-phosphorious active substance, more than 10 kilograms of bread grains are obtained. The highest yields have been obtained in Korce and Gjirokaster, under high agrotechnical conditions, in the ratio of nitorgen phosphorous fertilizers of 1:0.6.

The strengthening of the material-technical base, of the control over the use and quality of fertilizers and of other chemical means, the improvement of the professional skills of the specialists and of the mechanics, the study and the immediate introduction in production of scientific inventions and of progressive experience, as well as the scientific handling and maintance of fertilizers in proper storage areas to create the necessary reserve, constitute a basis for the increase of the effectiveness of chemical fertilizers and for the reduction of losses from harmful species and from diseases, as well as the protection of the surrounding area. Of special importance here are the scientific amelioration of lands, the improvement of the nitrogen, phosphorous and potassium ratio in favor of the last two elements, as well as the use of chemical fertilizers in the integral fertilization system and on the improved land, in order to achieve high indicators of production for agricultural crops.

5112
CSO: 2100

MORE ATTENTION TO LIVESTOCK SPHERE URGED

Tirana ZERI I POPULLIT in Albanian 9 May 80 p 2

[Article by Avni Mustafa, director of Directorate of Livestock in Ministry of Agriculture: "An Essential Condition for Fulfilling Livestock Tasks"]

[Text] More and more attention is being devoted to increasing and improving livestock at quite a few agricultural units and districts. Thus, a greater effort was made to increase the number of livestock during the past year than in the first three years of the current five-year plan. The number of cattle increased 39 percent in comparison with the previous year, while the number of sheep and goats increased 7.2 percent. The districts of Pogradec, Shkoder, Tirana, Mat and Mirdita in particular performed well last year in increasing the number of head of livestock.

The state livestock sector, as far as concerns increasing the number of head of livestock, increased them according to the plan in poultry, goats and solid-hoofed animals. The figures for wool were 99 percent achieved. A satisfactory effort was made especially in the treatment of heifers and their becoming cows, by 17 percent. This was accomplished because attention to breeding improved considerably. This improvement occurred in such areas as their numerical increase, the improvement of shelter conditions, reinforcement and improvement of the food base, etc. For these same reasons, the raising of lambs and kids to be ewes and she-goats reached 25 to 30 percent, sows 27 to 30 percent, etc. The cooperativist sector, with the exception of certain agricultural units, in general has not properly fulfilled the tasks of increasing the number of livestock. Deficits exist especially in increasing the number of draft oxen and mares.

The number of livestock is not being increased at the rate set by the Council of Ministers Resolution No. 390 for livestock. An inspection conducted by the Ministry of Agriculture in the districts of Korce, Elbasan and Durres indicates that obvious deficits exist. In Durres District, other than producing the planned number of sows, no other task for increasing the number of livestock was accomplished last year. The agricultural enterprises of Elbasan District made a better effort to increase the number of livestock, but cooperatives created obvious shortfalls. A poor effort was made in this district especially in improving the age structure among cows and other types of livestock. By removing from the herd nearly as many head of livestock as were added to it, the planned rates of reproduction not only have not been achieved, but the number of head have decreased. This negative phenomenon also appeared in several other districts, such as in Kruje for cows, in Lezhe for goats, in Shkoder for sheep, in Lushnje for sows, etc. In these instances, the funds provided by the state have not been used correctly, as designated, for increasing the number of livestock, but for renewing the herd, or even worse, for increasing meat production.

Why does this happen? The managers of several agricultural units and of agricultural sections of several districts justify this backwardness in increasing the number of head of livestock by the fact that "the bitter winter in one zone or another hinders increasing them further." The managing organs of agricultural units, instead of organizing and improving their work to overcome the problems of weather through the improvement of shelter conditions for livestock and improving the food base for them, look for 'reasons" to justify their backward position. Naturally, when the shelter and food base are inadequate, the livestock is not even secure in such warm climate zones as, for example, the Lezhe, "Liberation" and Levani agricultural enterprises in Fier and quite a few cooperative in coastal districts. However, the goals were achieved in harsh climate districts where good work was done, as occurred last year, for example, in such districts as Pogradec, Mat, Tropoje, etc.

Failure to provide good conditions for animal management is detrimental to the production of livestock from another standpoint. When these are not available, many animals, especially the newborn, are injured or have to be slaughtered. Besides this, the fertility of cows, sheep and goats is low. Damage last year was especially heavy among poultry and hogs and among kids and lambs.

These and the other shortcomings in incrementing the number of livestock originate right in the organization of the work done for this purpose. Inspections show that the increase in livestock is not based on precise studies and is often left out of control. At the agricultural cooperatives of Shtermeni and Shushica in Elbasan District, for example, the planned number is being missed by a few head, but would be met by stronger discipline toward increasing the supply of breeding stock and slaughtering. A similar situation exists at certain cooperatives in the districts of Durres, Lezhe, Lushnje, etc. Notable deficiencies in providing livestock also exist in the selection of the breed stock in the essential planning and implementation of the number of them necessary. This is accomplished when the needs of the producing herds for reproduction are known and when the accounting is done on the basis of the appropriate norms for increasing the number of livestock. It is then decidingly important to define precisely the sources for obtaining them. However, shortcomings and deficiencies still exist in these areas and, as a consequence, they result in an inconsistent and shortsighted effort for this very important problem.

An important factor which seriously affects the provision of all types of livestock is the inadequate work being done in the area of fattening them up. Many in charge of cooperatives, in order to fulfill the meat sales plan, consign to the collection enterprises kids, lambs, pigs, etc. at a lower weight than the parameters specify and, as a consequence, they deliver more head. This is why they maintain fewer head than they need for breeding.

Our country's outstanding units view the provision of livestock from yet another aspect: assuring right at the beginning of the year the planned number of cows so as to obtain the planned amount of beef and milk from them. This is done at the agricultural enterprises of Berat and of Gose in Durres District, at the agricultural cooperative of Buçimas in Pogradec District, etc. However, at quite a few other units the job is considered finished when they provide the livestock by the end of the year. This phenomenon is also apparent again this year. Although the first quarter has ended, certain units and such districts as Berat, Diber, Fier, Durres and Elbasan have not yet secured the number of cows planned for this year. This is one of the major reasons that they are somewhat behind in fulfilling the tasks assigned for livestock products, especially milk. Very obstructive is the concept that the tasks can be accomplished with fewer head of livestock since service to them increases and productivity grows, instead of struggling to increase the number of head and to raise productivity.

The provision of the number of livestock will be viewed finally with regard to their quality. This also goes to the other extreme. To be formally correct, it happens that old or defective animals which neither produce nor are suitable for work are maintained.

To eliminate these shortcomings and to assure the number of livestock planned for this year, the managing organs of agricultural units and the agricultural sections in the committees of district people's councils should look into this better starting now. By improving the work of increasing the breeding stock and the utilization of units' own resources and by correctly using the credits granted by the state for this purpose, all possibilities exist for reaching the goals set by the Seventh Party Congress for the development of livestock.

5658
CSO: 2100

BRIEFS

STUDENTS ABROAD--The experiences of the Albanians in sending experts to study certain business projects abroad and in sending students or interns for further professional education abroad are said to have been better than the protectors of Albanian ideology had feared. At any rate, recently other study groups have followed the young engineers who studied construction and the operation of electric power stations a few years ago in Switzerland and Austria. A few Albanian students were able to go to France and Italy where they were instructed in subjects which they had studied previously in China or in the Soviet Union or Yugoslavia just after the war. Recently a group of young Albanian architects visited Switzerland where contacts were made with professional groups and with advanced schools for the first time since World War II. Specialists from the Swiss chemical industry have been contracted by Tirana to give courses for several months in Albanian textile factories. [Excerpt] [Frankfurt/Main FRANKFURTER ALLGEMEINE in German 5 Aug 80 p 3]

CSO: 2300

MODERNIZATION OF FOREIGN TRADE METHODS URGED

Sofia VUNSHNA TURGOVIYA in Bulgarian No 5, 1980 pp 2-6

[Article by Dimitur Stoyanov, candidate of economic sciences: "The Intellectualizing of Foreign Economic Activities Is a Complex Problem"]

[Text] The variety of forms and the growth of the intensiveness of foreign economic relations achieved by the Bulgarian People's Republic, and the steady intensification of their interdependence are leading to the establishment of a relatively autonomous national foreign economic activity complex. This objectively developed complex covers individual parts and processes of the economic base and superstructure of the country. It has a number of specific characteristics and traits and performs very important functions in the formulation and implementation of specific problems to be resolved in the individual stages of building mature socialism.

Now, on the eve of the Eighth Five-Year Plan, which will be a five-year plan of accelerated scientific and technical progress, when the ways and means for achieving all-round intellectualization of the social and economic areas in our country are being earmarked, the problem of intellectualizing foreign economic activities becomes particularly topical. The importance of this problem is determined by the role which foreign economic activities play in expanded socialist reproduction. The need for its scientifically substantiated, broad, and timely solution, in turn, stems from the intelllectualization role earmarked by the BCP aimed at insuring high social labor productivity, quality changes in the development of production forces and production relations, and reaching the objectives and tasks of the developed socialist society. At the present time this calls for a determination of the factors which require the intellectualization of foreign economic activities and their nature, objectives, and tasks, the areas to which it is connected, and in which it appears, and the ways, means and methods to achieve it.

The factors which trigger the need for the intellectualization of foreign economic activities are determined by the fast growth of scientific achievements under the conditions of the scientific and technical revolution, and the nonantagonistic contradiction developing under socialism between the level of scientific and technical accomplishments and the level of functioning production forces. The solution of this contradiction is one of the sources for the movement for the development of production forces. The planned solution of this contradiction through the means of economic management under socialism calls for coordinating production forces with the level of scientific and technical achievements, not only nationally but on a global scale. The delayed resolution of this contradiction and the slowdown of the pace of the qualitative development of production forces and management activities limit the possibility for actively involving the country in the international division of labor and become a hindrance in the development of this objective process and in the utilization of the advantages it offers in upgrading national economic effectiveness. In this sense the scientific and technical progress plays a particular role in the practical achievement of intellectualization in foreign economic activities. On the other hand, however, the intellectualization of foreign economic activities is part of the prerequisites for the development of scientific and technical progress in the country. The factors which influence the intellectualization process in foreign economic activities, based on their target, may be classified, most generally, in terms of the people included in such activities, labor means, labor tools, production methods, functional economic activities, and management. One of the tasks of the science of foreign economic activities now is to determine the specific characteristics of these factors in order to contribute to the practical efforts to develop the intellectualization process.

In the broadest meaning of the term, the nature of the intellectualization of foreign economic activities is manifested in the materialization of the highest achievements of scientific and technical progress in the course of the industrial transformation, export, and import of resources (material and intellectual) with participation in the international division of labor and in proceeding functional and managerial activities. This shows that the intellectualization of foreing economic activities is related, first of all, to the area of material production involved in the international division of labor (including science); second, in the functional system of foreign economic activities which creates and develops foreign economic relations; third, to the organizational system of management of foreign economic activities. The tasks must be systematized within these three areas and the specific fields of its manifestation must be sought and adequate ways, means, and methods for its dynamic development must be earmarked. This indicates that the intellectualization of foreign economic relations is a comprehensive and many-faceted problem requiring the extensive application of the systems approach in its study and controlled practical implementation.

The purposes and tasks of intellectualization of foreign economic activities are based on systematic, planned, and comprehensive work in the scientific, production, functional, and managerial areas, aimed at transforming quantitative accumulations from participation in the international division of labor into substantial qualitative changes of such participation, leading to a rapid growth of national economic effectiveness.

This objective clearly indicates that intellectualization faces practical work with the task of changing the criteria and indicators used to assess results of foreign economic activities and of the work of specialists employed in this area. Now we must convert from quantitative indicators showing the growth of trade, exports or imports, number of topics and developments based on international scientific and technical cooperation, the number of contracts signed for international production specialization and cooperation or for their increased share of exports, the number of projects built jointly with other countries, the number of licenses purchased, the number of tourists accepted, and so on, to a system of quality indicators for achieving national economic results, saving work time and public labor, reducing outlays per unit of income, increasing the net foreign currency income per unit of invested labor, and many others.

The problems to be resolved in order to accelerate intellectualization in scientific work and material production related to foreign economic activities may be found in a number of areas. The first is that of scientific research and design, both in terms of the development of the products to be manufactured for export as well as the method and technology of their manufacturing. Intellectualization in scientific applied work is related to the practical utilization of the latest basic discoveries in the natural and technical sciences such as, for example, physical chemistry, nuclear physics, microelectronics, genetics and engineering biology, microbiology, and many others. In this case it is a question of establishing resources for export with basically new consumer purposes or of unique technical solutions and multiple-element machine systems for comprehensive services, multiple function products, modern esthetic finishing, and so on, and modern wasteless technologies, increased precision and strength, etc. On the basis of the current commodity structure of our exports, the problem of rapidly increasing the share of science-intensive goods such as electronics, hydraulics, pneumatics, robotics, precision machine building, instrument manufacturing, and others, is particularly topical. Bearing in mind the energy crisis and the shortage of raw materials, this would enable us to increase in the future the value of our exports while relatively reducing outlays of raw material resources such as ferrous and nonferrous metals, petroleum, coal, synthetic products, natural fibers, timber, and others. Intellectualization plays a no lesser role in the development of exports of more highly finished products, terminating the export of raw and semifinished goods and increasing the share of exports of goods produced on the basis of complex technologies, possessing higher technical characteristics, one-of-a-kind prescriptions, specialties, delicatessen goods, fashionable goods, works of art, and so on. Exports of intellectual services, engineering activities, sales of Bulgarian patents and know-how, including the assignment of highly skilled specialists to other countries for technical and scientific cooperation and consultation on economic management and training-educational work must be increased ever further.

Intellectualization in capital investments in new production capacities or the modernization and reconstruction of existing ones, related to foreign economic activities, is another important area. This applies both to problems of the concentration of capital investments mainly on the production of new, promising goods, in demand on the international markets, manufactured on a high scientific and technical level, as well as problems of the standard of the installed equipment itself, technologies applied, planning the organization of the production process, and others.

The intellectualization of the material area of foreign economic activities is closely related to the intellectualization of the production process providing resources for participation in the international division of labor. Here, above all, attention must be concentrated on the fast application of automated production systems and mechanization and automation of labor intensive or physically difficult production operations, management dispatcherization of the production process, introduction of industrial electronics and robotics, and so on. The problems in these areas could be successfully resolved only through the joint efforts of specialists and managers in science, production, foreign trade, and other forms of foreign economic activities. It is incorrect to believe that the ways, means, and methods for the intellectualization of foreign economic activities should be sought exclusively in their functional or managerial systems.

The tasks related to the accelerated intellectualization of the functional system of foreign economic activities, i.e., the system which shapes foreign economic relations with other countries and partners, directly engaged in sales and purchases, making contracts for economic cooperation and drafting their conditions (prices, shipping, deadlines, rights and obligations, and other various stipulations), are manifested in many areas. The determining factor here is the enhancement of the economic and professional standard of cadres matching the level of the best scientific and practical achievements in this area. In this case it is a question of abandoning primitivism and routine and giving priority to high professionalism, efficiency, creative approach, feeling of responsibility, speed of reaction, boundless loyalty to the homeland and our toiling people, and putting public above private interests. Conceiving of intellectualization as a process of materialization of top scientific and technical achievements by the cadres means, actually, the steady updating and enhancement of their skills, and the struggle against their "moral obsolescence." All of us clearly realize that in the age of the scientific and technical revolution a machine, even though physically not worn out, yet produced 5 or 8 years ago, has already become "morally obsolete." However, we do not always agree with the real fact that within roughly the same time, in the course of our "structuring" as specialists through the vocational training system, we too could become "morally" aged and that our skills must be upgraded.

It is true that practical experience is the best teacher of man. However, even the best practical specialist develops as such by amending his work on the basis of the "trial and error" method. However, this method for acquiring skills cannot be applied in foreign economic activities, for it offers no scope for errors which turn out to be costly to the national economy. The more so since, considering the current conditions of dynamic changes of the circumstances in which international economic relations take place, no guarantee whatever exists that yesterday's knowledge could serve us tomorrow as well. One of the tasks of the science of foreign economic activities is to "enlighten the path of practice" by summing up, interpreting, and enriching its comprehensive experience. The training of cadres, carried out on this basis, aims, through their intellectualization, to create conditions for the safe and rapid determination of the true way and of the most effective solution under the new circumstances without any loss of forces or resources.

The purpose of this figurative aside is to substantiate the need for rapidly improving the system governing the choice, training, and qualifications of cadres in foreign economic activities. The only true way here is organizing the process of cadre intellectualization on a long-term planned basis, accurate assessment of future needs for specific types of specialists, objective assessment of their possibilities and personal qualities, and strict observance of mandatory plan indicators in this area as well. Naturally, the selection and training of teachers needed for this purpose, who also could become "morally" obsolete or may not be found in the realm of the latest areas of practical activities or sciences, is an inseparable part of cadre planning and training. Regrettably, we notice occasionally a groundless fear of the new in science. Mistrust is manifested and the application of more complex methods for analysis, simulation through mathematics and cybernetics, and use of computers may be noted. The accelerated intellectualization of cadres within the system of foreign economic activities requires the extensive use of the experience of the other technically advanced countries, toward whose export and import structure our country is getting ever closer. This calls for assigning a larger number of Bulgarian cadres for training in such countries and recruiting more of their specialists to work in our country and trade experience. Unquestionably, considering the broad scale of the retraining, training, and advancement of cadres, not only within the foreign trade system but in all forms of foreign economic activities, it is becoming necessary to create the proper organizational prerequisites and a broader and more effective training and material base.

Intellectualization in the management of foreign economic activities raises a number of new problems as well. The basic area here is the accelerated development of a unified automated system for controlling foreign economic activities, the organization of its subsystems, and conversion from the phase of design and of experimentation to practical application. This calls for paying serious attention to the most efficient utilization of the possibilities presented by the information-computer center of the Ministry of Foreign Trade and the terminal units installed in the big foreign trade enterprises. It is well known that today, for a variety of objective and subjective reasons, the available and expensive computers are still being used mainly as a "calculating station," while their great possibilities for logical operations, the development of alternatives in management decisions under different situations, program analyses, forecasting, optimum planning, and others, remain unused. Intellectualization in management is related to surmounting a number of psychological barriers and the natural human concern that electronic technology will replace carefully kept manual notes which are considered far more reliable than some kinds of punched cards or tapes, or inexpressive recording tapes or discs. Naturally, once again this raises the problem of skills, of the ability of every one of our specialists to interact with such intelligent machines, seek their help, know what they can do, give them problems and use their answers. The most important unit of an automated control system is its information subsystem. Raising the information subsystem to a contemporary scientific level is an area in which the intellectualization of foreign economic activities could contribute most rapidly and relatively most inexpensively to upgrading effectiveness. We would not err by saying that in this respect we are quite hindered by primitivism, formalism, and incompetence.

Underestimating the role of prompt, selective, brief, and clear information support hinders the quick and accurate decision-making process. We know that considerable foreign exchange is spent by our country to purchase information sources. However, no one has studied the effectiveness of such outlays. A number of subscriptions to foreign newspapers and periodicals are kept traditionally, by habit, despite the fact that in the course of time the nature and content of some of them have changed and no longer meet the needs of data consumers. Meanwhile, other important sources remain unknown to us or else we lack funds for their procurement. A substantial share of information is used mainly for current or temporary processes and the need for systematic gathering of data over past decades as reference information, without which the study and forecasting of lasting trends and of the future development of processes are inconceivable. Intellectualization in information services also requires a change in the approach to the gathering, processing, storage, and retrieval of information, improvements in the technology of such activities, and the utilization of technical facilities for the purpose, including microfilming, introduction of systems for fast retrieval and screen reading, duplication, and so on. Considering the fact that currently the technically advanced countries have developed entire information production sectors, mechanizing and automating this output, developing information systems for fast retrieval and transmission of data at a distance through a combination of computers, telephone, television, and other communications systems, it is clear that the automation and mechanization of production activities alone are no longer sufficient in upgrading national economic effectiveness. Extensive penetration into the achievements of technical progress and into management is necessary.

The application of a scientific organization of labor by every foreign trade organization is an important area of intellectualization of foreign economic activities. Frequently the units set up for this purpose are considered by some of our enterprises a foster child which must be cared for only because so ordered. There is a crying need for highly skilled cadres in this area. Yet, frequently we content ourselves with the efforts of some enthusiastic amateurs. There is no system for planned specialized training. The application of even modest projects and ideas is delayed and activities in this area are considered secondary as long as they are not operative trade work and as long as such people are not engaged in talks, making deals, or working for the implementation of the plan. A number of socialist countries are already creating specialized economic enterprises on improving work efficiency in foreign trade organizations, designing modern organizational structure, mechanizing labor processes and scientifically developing systems for bookkeeping, utilization of standardized documents, mechanized processing of commercial correspondence, and many others. The time has come for us as well to think of developing such a unit which will become the base for designing and applying a scientific organization of labor in foreign trade enterprises and will contribute to the faster elimination of the lagging developed in this respect.

The timely solution of some such problems through the joint efforts of administrative and party organs and the cooperation of entire labor collectives will insure the implementation of the tasks set by the National Party Conference on improving the socialist organization of labor and insuring the quickest and most effective planning system. This will create the necessary conditions for the intellectualization of foreign economic activities and the unhindered spreading of scientific and technical progress. It will secure the meeting of the strategic objective of the Eighth Five-Year Plan--a five-year plan of scientific and technical progress in all social and economic areas.

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CSO: 2200

BULGARIA

EDITORIAL CRITICIZES LACK OF TECHNICAL PROGRESS

Sofia RABOTNICHESKO DELO in Bulgarian 25 Jul 80 pp 1, 2

[Editorial: "Party Committees--Motive Power of Scientific-Technical Progress"]

[Text] Our country is climbing toward the peak of the Seventh Five-Year Plan. Working people from all spheres of the national economy, by implementing the decisions of the Eleventh Party Congress, achieved new immense successes in the construction of a developed socialist society. What has been done and accomplished hitherto is a sound foundation and a guarantee for further progress of the motherland.

Socialist Bulgaria has attained such a degree in its social and economic development which allows us to undertake the task to increase the social productivity of labor in coming years not merely by percentages but several fold. The ways and means to accomplish such a grandiose task in our socialist development are outlined and documented in Party decisions and, most of all, in the remarkable speeches of Comrade Todor Zhivkov at the National Conference with the Party, State, and Economic Aktiv on 31 October 1979 and on 30 January 1980.

Presently the role of scientific-technical progress is fundamental and decisive. The implementation of the highest achievements of the scientific-technical revolution--this is really the front on which the main attack will be carried out during the next--the Eighth Five-Year Plan, this will be indeed the prerequisite and the condition for the further successful fulfillment of the Party program for the construction of a developed socialist society.

The People's Republic of Bulgaria has entered into the second and last decade of the stage in which the construction of mature socialism must be completed. This will be the decisive decade assigning to the Party and country qualitatively new tasks, tasks requiring the reconstruction of the material-technical and, above all, the production basis on a fundamentally new technical and technological basis.

Fundamentally new, because it is the only way to ensure all necessary prerequisites for the successful completion of this historical stage in our socialist development. Undoubtedly, the job that will have to be done by our people is big and difficult. However, there are possibilities to do it. These possibilities are contained in the marked advantages of the socialist order per se which permits the maximum utilization of the accomplishments of the scientific-technical revolution. These possibilities are also contained in our successes and conquests achieved thus far in the industrialization of the country, in science, and technical progress.

Our Party has always considered the problems of scientific-technical progress as a question of primary significance both in the struggle for the construction of a new society and in the contest between socialism and capitalism. We may note with a feeling of deep satisfaction that precisely as a result of this policy Bulgaria today ranks among the countries with developed industry and a modern agrarian economy. Presently we have at our disposal a huge, for the size of our country, scientific and technical potential. These achievements represent an impressive confirmation of the vital force of the April policy of the Party, a policy which is creative, perceptive, and reflects the dynamics and requirements of the future.

Naturally, the conquests are great but, at the same time, they do not justify complacency, especially now, that our country has reached such a stage of development in which without science, without the utilization of the universal scientific-technical accomplishments it is impossible to move forward at an accelerated pace. Without modern science, without scientific-technical progress it will be impossible to improve socialist organization of labor, to reach qualitative changes in the utilization of the work tools, labor means, and live manpower, to realize the five-year plan slogan for high effectiveness and high quality. Hence, the formulations on scientific-technical progress which are at the core of the decisions of the Central Committee of the Bulgarian Communist Party and in the speeches of comrade Todor Zhivkov contain a profound strategic meaning and primary significance in the Party program for the construction of a developed socialist society, for the comprehensive exposure of the advantages and possibilities of socialism as a social order.

The realization of thes strategy in the sphere of scientific-technical progress requires, in the first place, to overcome and reject resolutely and completely the practice of measuring our progress only with the yardstock of our own accomplishments while failing to take into account and consideration the top accomplishments in the rest of the world. Therefore, the question here is to analyze deeply, comprehensively, and self-critically the state of science and technical progress and to resume the march forward with confidence while keeping pace with the modern world scientific-technical revolution. This is indeed the way to transform and utilize science as a powerful productive force.

However, in order to do this, as comrade Todor Zhivkov has repeatedly emphasized it will be necessary to look for fundamentally new solutions. A new approach is necessary. We may indeed continue to talk for years that science is a decisive productive force in society, but if we do not reorganize ourselves, if we fail to create the necessary organizational, economic, cadres, and other conditions, things will not change at all. What are the necessary new solutions?

In the first place, a new approach and new solutions in the sphere of information are necessary. Obviously, the existing information centers are not in a position to satisfy future needs. We need a fundamentally new information system, an information industry capable of delivering from all over the world information about enterprises, organizations, and institutes.

Fundamentally a new approach is necessary with regard to the activity of scientific institutes. It is no secret that currently there are institutes which are running away from the actual needs of production, institutes which fail to create, to discover, and are instead puttering about at odd jobs, carried away in some sort of administrative-bureaucratic nap. There are also many engineering organizations, which were formed and attached to various economic units and whose task is to ensure modern technical and technological standards in production, that do not respond to the requirements assigned to them. Science and information must produce results. There is no other criterion to measure their effectiveness. The results from the activity of scientific institutes cannot be measured by the number of scientific titles, but by the quantity and quality of scientific product, the kind of product that can be applied in production, that can raise its technical and economic standards, and, hence, accelerate our movement forward.

These are not merely topics for discussion. These are questions that must be resolved by the Party, State, and economic organs and organizations. Especially important in this case is the role of ministries. Presently their number one task is scientific-technical progress in their respective domain. They are no longer departmental organs. Ministries are State organs that must deal with the problems of the scientific-technical revolution, with the problem pertaining to the change of structure in production; they must develop the respective normative system aimed to raise the effectiveness and quality of every kind of activity.

Naturally, the problems of scientific-technical progress are an important part of the current main problem: the question about the intellectualization of production on a nationwide scale. The task for the accelerated implementation of the highest Bulgarian and world scientific and technical achievements requires a new higher qulaity of knowledge, skills, and training of all participants in the overproduction process. The question now concerns no longer the ability to operate just one machine. An individual who identifies production only with the idea of a machine is lagging behind in life by ten, twenty, even fifty years. From now on we must talk about the machine as part of a production line. The entire production in the country must be reorganized in such a way that it will come from the stream of automated production lines. Nowadays it will be expedient to produce machines that can have a multiplier effect in automated systems and lines.

Naturally, the practical realization of intellectual prerequisites in labor is a complicated and responsible work. Its success depends to a considerable extent on the development of a well based strategy in all domains, in all production units, in all conurbation systems.

Now, more than ever before, a concrete and business like approach toward the problems of scientific-technical progress will be necessary. The main driving force of this great work must be the Party organizations, the communists. Experience has already shown that when Party organs and organizations properly understnad and adopt a competent and businesslike approach to tasks in the sphere of scientific-technical progress, the results are always good. We may cite as an example the Party organization in Burgas. At the recently held plenum of the Party okrug committee, in which comrade Todor Zhivkov participated, were pointed out the concrete achievements and potential possibilities of the okrug's economy to increase several times labor productivity in the next few years through the rapid implementation of world achievements in science and technology in all spheres of production.

What is the typical feature in the approach of the okrug committee and the Party organizations in Burgas okrug in preparing complex programs for accelerated implementation of scientific-technical progress? First of all the programs and tasks discussed by the plenum took into consideration the task to increase several-fold the social productivity of labor, a task which will be basic for the country during the Eighth Five-Year Plan. The goal-oriented approach was applied in the process of assigning and clarifying the tasks associated with the implementation of scientific-technical accomplishments in material production during the next five-year plan period. Furthermore, all competent organs, institutes, higher educational establishments, specialists, and labor collectives participated in the preparation of the materials for the plenum; during that time they maintained close contacts and consultations with certain central State and economic organs. Thus the plenum prepared a document that had a direct relationship to the plan with the possibilities and needs of the okrug and the country; it was a document which in fact is a solid base for the Burgas okrug counterplan for the Eighth Five-Year Plan.

The recognition of the economic approach and the consistent application of the new economic mechanism is an exceptionally important condition for the development of scientific-technical progress and engineering-implementation activity. Relations among organizations engaged in the realization of the cycle "research-production-consumption" are developing on the goods-monetary basis and the more consistently the economic methods and means are utilized the higher will be the effectiveness in the sphere of scientific-technical progress. "We, ceclared comrade Todor Zhivkov, are striving to implement the world top scientific-technical achievements, that is, to implement the best technology, the newest equipment, the highest achievements in the organization of production and management... The new element in the economic approach consists in the fact that from now on we will strive to achieve these results through material incentives, through the stimulants of economic means."

The Party formulation that the Eighth Five-Year Plan must become a period of scientific-technical progress corresponds to the objective needs of our socialist development. However, in order to achieve this a tremendous ideological and organizational work will be necessary by all party organs and organizations, by the entire Party. The problem is not an academic one. The problem now consists in the practical realization of the Party policy, in the establishment of organizational economic and trained personnel prerequisites by implementing as a matter of principle the new approach formulated in the speeches of comrade Todor Zhivkov.

The transformation of top world scientific-technical accomplishments into programs and plans directly linked with the production plan of a combine, enterprise, brigade is really the essential task now.

Party committees must do their share in the fulfillment of this important and responsible task. They must become the basic organizers and driving force for the rapid implementation of scientific-technical progress in all spheres of the national economy.

Communists, as the leading detachment of the Bulgarian workers class and the entire working people, must mobilize all effort for the realization of this important stage in the development of our economy, a stage that will lead to real prerequisites for the further comprehensive progress of the People's Republic of Bulgaria.

CSO: 2200

INCENTIVE WAGE ADJUSTMENTS IN TRADE ORGANIZATIONS VIEWED

Prague PRACE A MZDA in Czech Jun 80 pp 291-295

[Article by Jaroslav Marhoul, Labor and Wage Section, Central Council of Trade Unions]

> [Text] One of the most important factors which determine the growth of effectiveness and quality of trade services is a correctly-oriented personal monetary incentive of their employees. For this reason the Czech Committee of the Union of Trade Employees [CVOS] focuses the attention of its organs and wage aktivs on consistent improvement in the system of rewards, especially wage forms. The CVOS considers its active participation in the current evaluation of economic and incentive effectiveness of wage forms, as an important component of its overall political and organizational work.

Wges Forms During the Preparation and Introduction of Higher Effectiveness in Labor and Wage Systems [RMPS]

From 1973 to 77 the union, in close cooperation with the Czech Ministry of Trade and the Czech Union of Consumer Cooperatives, focused its primary attention on the substantive, organizational, and political preparation for a gradual introduction of higher effectiveness in labor and wage systems.

Besides efforts to improve the branch qualification catalogs and basic wage regulations for all categories of workers, especially those in trade operations, and their correct practical application, the union devoted great care to wage forms which in the areas of state trade, including those managed by the national committees (the Raj and Coal Storage Enterprises) and those in consumer cooperatives, are traditionally influenced from the center with respect to methods.

In the trade sector, the union initiated a meticulous examination of the long-used mixed wages which guite intensively affect the material incentive in receipts. The purpose of this examination was to assess the suitability of this wage form for the future, and possibly try to improve it.

This assessment demonstrated that mixed wages are still justified, especially in smaller trade units and operations. Based on experience gained directly in operations, however, certain significant adjustments in this wage form were carried out. These include primarily the following:

--to strengthen the role of tariff wages, the fixed portion of mixed wages was raised from 60 to 70 percent,

--on the other hand, the performance portion of mixed wages was lowered from 50 to 40 percent. This brought about a desirable adjustment in the onesided dependence of wages on receipts which had led to undesirable lowering of the quality of services tendered. At the same time, the advantages of this wage form were retained, namely, the relatively high dependence of earnings growth on performance, which helps resolve the problems emanating from shortages in the labor force,

--another adjustment was made in the distribution of collective earnings according to the base pay of each worker and the number of hours worked. This helps to curtail equalization tendencies, especially among highly qualified personnel.

Since the application of the RPMS, a new concept was introduced in the timed wages with collective premiums for fulfillment of a predetermined volume of turnover. The premium is calculated so that its formation begins with a 65 percent fulfillment of the turnover indicator at 3 percent of the sum of the base pay of the collective. The level of the premium rises progressively with the percentage of plan fulfillment. With optimum fulfillment of 100-105 percent, the premium reaches 11 percent, with 150 percent fulfillment it becomes 20 percent of the average pay of members of the collective. With very high fulfillment indicators, justified especially by favorable seasonal conditions, the premium can reach as much as 70 percent. The distribution of the premium is basically the same as the performance portion of mixed wages, namely, that 30 percent can be divided by the manager among the workers according to each individual's contribution to the good results achieved by the collective.

In the interest of strengthening material incentive in the desired volume of sales and services, new quarterly bonuses for quality work were introduced as a relatively independent wage form, in addition to the above-mentioned wage forms.

The payment of a previously-announced amount of collective reward is conditioned on the following two criteria:

a. The required level of services (covered in detail in collective contracts),

b. Fulfillment of the quarterly retail sales plan in the amount of 100 to 95 percent, with a degressive effect of the amount of the reward.

In addition to the above changes, the use of shared wages has been significantly reduced throughout the entire sector. This system can only be used with approval by the higher echelon in operations involving one or two workers. This measure is currently applied only in cooperative operations and in occasional door-to-door sales.

At the very beginning of the RPMS, the CVOS advocated that individual rating of workers be based to the maximum possible degree on the principles drawn up by the Federal Ministry of Labor and Social Affairs. At that time, however, this could not be implemented due to lack of available wage funds.

Consequently, gradual personal evaluation, initially in the most important areas of freight transport and maintenance, became effective only as of 1 July 1979. Depending on the development in the needed wage funds, the CVOS will support a gradual expansion of this effective wage form to other groups of employees.

Nontraditional Wage Forms

In June 1977 the CVOS--in accordance with the resolution of the 2d Plenary Session of the Czech Trade Union Council--adopted political and organizational measures to implement the conclusions of the Seventh CPCZ Central Committee Meeting, designed to satisfy the material needs of the population, and ensure further development of domestic trade.

In addition to other tasks, the measures include the CVOS' determination to prepare, test, and gradually implement--together with appropriate branch organs--certain new, nontraditional forms of rewarding employees in trade operations, forms which would be oriented toward greater material incentive for employees in improved overall quality of trade operations and services.

An important motivation in setting forth this task was finding that even the RPMS newly-introduced quarterly collective rewards did not produce the anticipated results in practical application. This was due largely to an incorrect preference for the conditioning criteria of retail trade turnover fulfillment, and inconsistent evaluation of the basic work quality indicator.

The task of examining nontraditional wage forms was implemented by both trade ministries and the CVOS of Trade Employees in early 1978.

The developmental work on the original concepts as presented by the Trade Research Institute, and designed to outline organizational preparation and evaluate the experiment, was entrusted to an interministerial commission in which the CVOS actively participates.

Binding directives for an experimental assessment of nontraditional wage forms, published in agreement with the CVOS, contain three forms of rewards:

a. Quarterly premiums for plan turnover fulfillment are more precise collective bonuses paid out with timed wages or in mixed wages for the fulfillment of the quarterly retail turnover or production plan.

b. Rewards for quality labor are awarded for 3 to 6 months ahead of time to a worker who in the four-grade point system of evaluation (0-3 points) of six binding quality criteria, had achieved at least 10 points and received zero in none of the criteria. Workers reaching as many as 14 points are awarded a bonus of at least 5 percent, and those achieving more than 15 points can receive up to 20 percent of their base pay.

c. Rewards for checkout counter employees are aimed at raising the interest of these women workers in self-service outlets in expediting the processing of customers. This basically represents an individual mixed wage whose fluctuating portion depends on the percentage norm fulfillment of the number of customers processed and on the norm average value of each purchase.

Course and Results of Testing Nontraditional Wage Forms

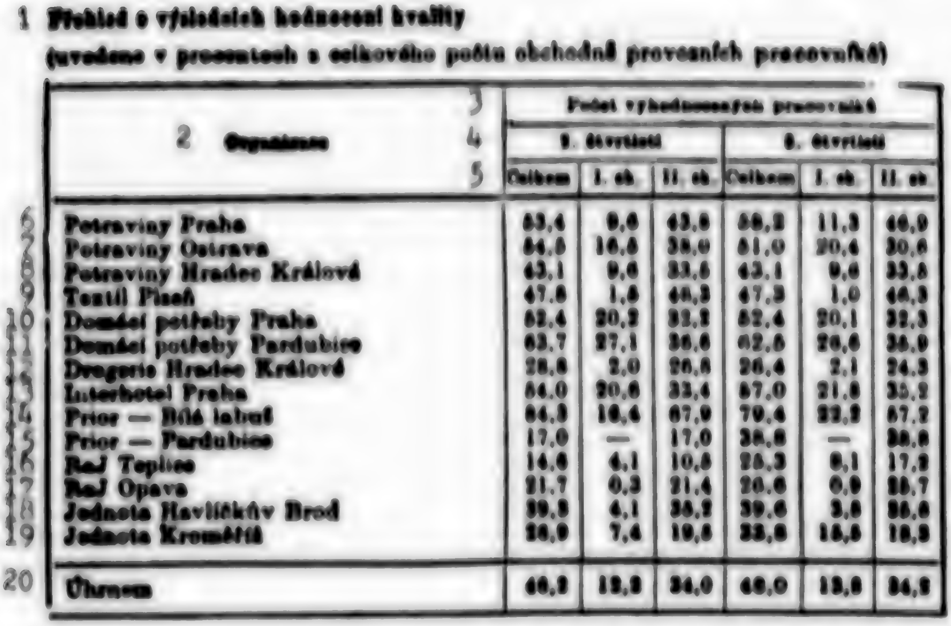
Since 1 April 1979 when the necessary preparatory work was completed, nontraditional forms have been tested in 14 selected trade organizations with a total of about 18,000 employees.

Experience in the first 6 months has revealed that in applying quarterly premiums for turnover plan fulfillment there are no technical wage problems. The tested system functions automatically and objectively.

The other form of rewarding the checkout counter employees is being tested on 60 cashiers in the Ostrava Food Enterprises. In other branches and enterprises this type of testing has not been undertaken. The main objection to a broader application of this wage form--namely, that it is effective and profitable only in large outlets where the cashiers are firmly assigned to one counter--must for now be recognized as justified. Therefore, even though results in units tested are positive, the overall value of the testing process is still limited.

Quite in accordance with expectations, main interest in the testing process was largely concentrated on the use of awards for quality work.

The nontraditional nature of this wage form lies not only in the awarding of it as such, but primarily in the requirement that each employee considered eligible for it actively demonstrate the quality of his work. It was also confirmed that wherever this form was approached responsibly and in full conformance with prescribed methodology, this type of reward could



1 **Přehled o výsledcích hodnocení kvality**

(uvedeno v procentech z celkového počtu obchodně provozních pracovníků)

2 Organizace	3 Počet vyhodnocených pracovníků					
	4 2. čtvrtletí			3. čtvrtletí		
	5 Celkem	I. sk.	II. sk.	Celkem	I. sk.	II. sk.
6 Potraviny Praha	53,4	9,6	43,8	58,2	11,3	46,9
7 Potraviny Ostrava	54,5	16,5	38,0	51,0	20,4	30,6
8 Potraviny Hradec Králové	43,1	9,6	33,5	43,1	9,6	33,5
9 Textil Plzeň	47,8	1,5	46,3	47,3	1,0	46,3
10 Domácí potřeby Praha	52,4	20,2	32,2	52,4	20,1	32,3
11 Domácí potřeby Pardubice	63,7	27,1	36,6	62,5	26,6	35,9
12 Drogerie Hradec Králové	28,8	2,0	26,8	26,4	2,1	24,3
13 Interhotel Praha	54,0	20,6	33,4	57,0	21,8	35,2
14 Prior — Bílá labuť	84,3	16,4	67,9	79,4	22,2	57,2
15 Prior — Pardubice	17,0	—	17,0	38,8	—	38,8
16 RaJ Teplice	14,6	4,1	10,5	25,3	8,1	17,2
17 RaJ Opava	21,7	0,3	21,4	20,6	0,9	19,7
18 Jednota Havlíčkův Brod	39,3	4,1	35,2	39,6	3,8	35,8
19 Jednota Kroměříž	26,9	7,4	19,5	33,8	15,5	18,3
20 Úhrnem	46,2	12,2	34,0	48,0	13,8	34,2

Key:

1. Survey of Results in Quality Evaluation (listed in percent of the overall number of employees in trade operations)
2. Organization
3. Number of employees evaluated
4. 2d quarter, 3d quarter
5. Total, Group I, Group II, total, Group I, Group II
6. Foodstuffs Prague
7. Foodstuffs Ostrava
8. Foodstuffs Hradec Kralove
9. Textile Pilsen
10. Household Goods Prague
11. Household Goods Pardubice
12. Drugs and Medicines Hradec Kralove (drugstores)
13. Interhotel Prague
14. Prior-Bila labut
15. Prior Pardubice
16. RaJ Teplice
17. RaJ Opava
18. Jednota Havlickuv Brod
19. Jednota Kromeriz (14 through 19 are department and food stores)
20. Total

be authorized for only about one third of the most qualified workers. The fact that it is awarded to a narrow circle of the best workers considerably ahead of time, was met with approval because this acts as a moral incentive for justifying the award even in future periods, and encourages healthy ambition and competition among other employees. Consequently, in most collectives where the experiment is being tested, there is positive consensus on the desirability and purpose of this wage form.

Most employees and union officials support the prescribed principle of more tangible appreciation for quality work, and agree that rewards be granted on the basis of relatively demanding but objective evaluation of results achieved.

It is gratifying that the approach of most experimental organizations to the system of employee rating was objective and demanding.

There are, however, some enterprises in whic, contrary to proclaimed principles, evaluation was viewed rather benevolently. This is demonstrated by a disproportionately high number of rated workers, for example, in the department store Bila Labut Prague where awards were approved for virtually all management personnel, even though there are among them, as among rank-and-file sales clerks, less qualified workers along with the exemplary ones.

Participation by Union Organs

In addition to economic workers, union organs and its wage aktivs participated actively in the preparation, monitoring, and evaluation of the experiment.

The union's kraj committees consistently monitored the results of the testing process and provided methodological aid in the interpretation of the approved principles, and simultaneously assisted the union basic organizations in resolving outstanding problems. Most important, the union organs' experiences with rating organizations provided the basis for the assessment of the experiment which was conducted in September 1979.

Appropriate plant and enterprise committees also fulfilled their main tasks, namely, to prepare and approve--in cooperation with management--the necessary implementation regulations, and to acquaint the appropriate collectives with the new criteria for rewards. The good work of many of these committees is demonstrated, for example, by the joint time schedule progress chart of economic and union organs in the Jednota Havlickuv Brod enterprise, which listed joint activities and training sessions, starting with the enterprise management all the way to the union organizations at work wites. Based on this and other documentation, we find active interest and care in many union plant committees and their wage aktivs in ensuring objective evaluation of the quality of work.

It is important to note that officials of union basic organizations assessed positively the evaluation system for quality work rewards and recommended that it be applied throughout the trade sector. In their opinion, even the more demanding requirements in quality work evaluation, criticized by some economic workers, must not be a cause for abandoning the system. In this respect, we should emphasize that the basic prerequisite for the proper functioning of this wage form is objective evaluation in all organizations, conducted with strict adherence to prescribed requirements.

In late 1979 we conducted the first overall assessment of results achieved in the evaluation of nontraditional wage forms, in which the CVOS and its wage commission participated. At that time it was agreed that evaluation of nontraditional forms will continue until 31 April 1980. Simultaneously, the criteria for quality work rewards were adjusted as follows:

--the number of points an employee needs for a reward was raised to 12;

--a reward approved for an individual must represent at least 10 percent of his base pay;

--all those who have undergone evaluation will be assigned to only one group.

Differentiation in rewards will henceforth depend only on an individual's base pay.

It was further decided that the regulations for this wage form will be adjusted with finality only following an overall assessment of the experiment. It is expected that overall introduction of nontraditional forms will begin on 1 July 1980 and will be gradually introduced in a manner which will allow their application in all trade organizations by 31 March 1981.

The union and its wage aktiv will continue to participate fully in the overall assessment of the experiment, in the final adjustment of regulations governing nontraditional wage forms, and in their gradual introduction throughout the entire trade sector.

9496
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WAGE, EMPLOYMENT DEVELOPMENT IN FIRST QUARTER OF 1980 DISCUSSED

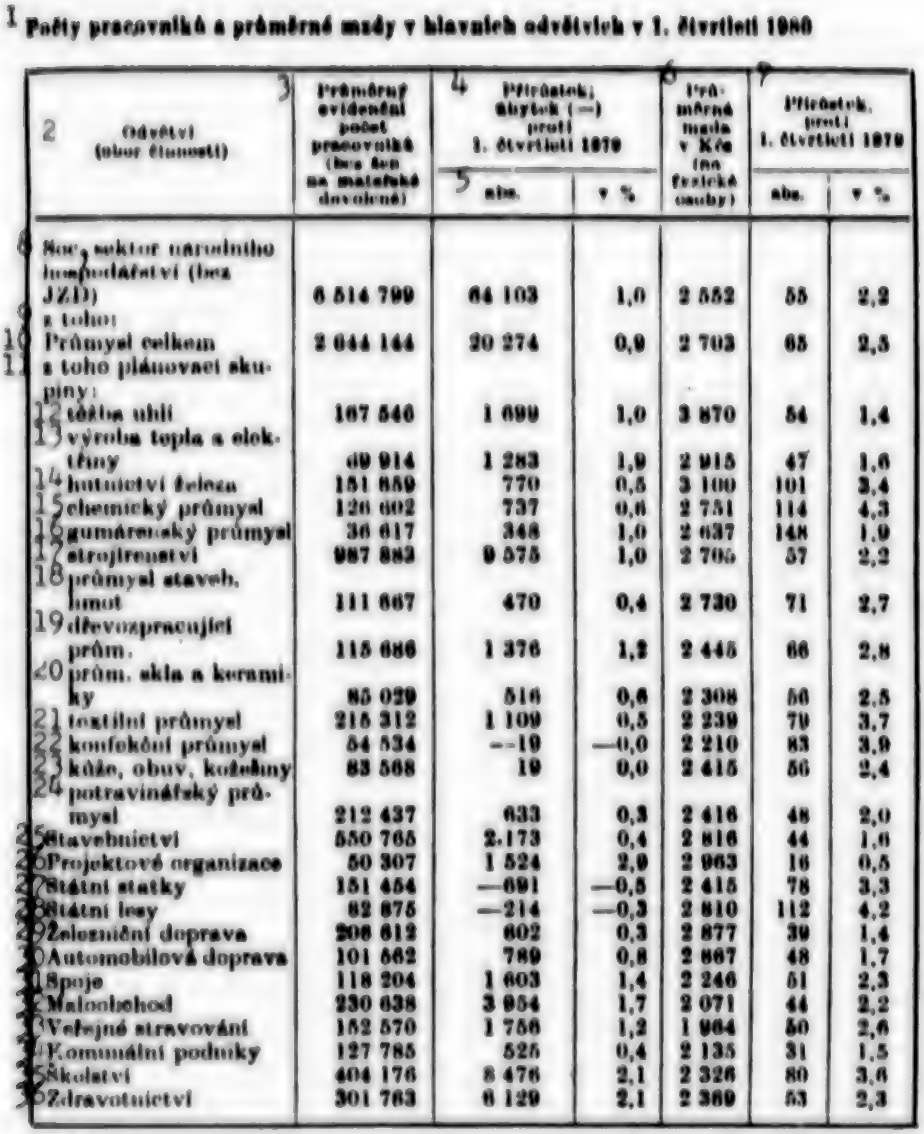
Prague PRACE A MZDA in Czech Jun 80 pp332-335

[Article by Jiri Fremr, Federal Bureau of Statistics]

[Text] The number of workers in organizations of the socialist sector of the national economy (without the Unified Agricultural Cooperatives, JZDs) was in the first quarter 6.515 million and rose over the same period last year by 64,000, that is, 1.0 percent. In the Czech Socialist Republic the number rose by 32,000 (0.7 percent) to 4.623 million, and in the Slovak Socialist Republic also by 32,000 (1.7 percent) to 1.892 million people. From the numbers cited for the CSSR, the share of organizations included in the state plan was 6.306 million workers recomputed to fully employed individuals whose number rose by 0.9 percent, which is 0.2 point more than envisaged by the annual plan.

In industrial enterprises, employment developed in consonance with the plan, in construction the growth of the number of workers was 0.2 point higher in comparison with the expected growth in the plan for 1980. Relatively high increments in the number of employees were recorded in health care and education (2.1 percent) in connection with capacity increases within the framework of the national committees election program fulfillment. In rail transport, adopted measures for the stabilization of the labor force succeeded in arresting their persistent drop; compared with the first quarter of last year, the number of employees indeed rose by 0.3 percent. A further drop in the number of employees occurred in the State Farms and State Forests.

Wages in the socialist sector of the national economy (without the JZDs) amounted to 49.9 billion korunas, that is, 1.6 billion korunas (3.2 percent) more than in the first quarter of 1979. In addition, other personal outlays amounted to 0.9 billion. The growth in the average wage accounted for 70 percent of the compensation growth, while 30 percent covered the growth in employment.



1 **Počty pracovníků a průměrné mzdy v hlavních odvětvích v 1. čtvrtletí 1980**

2 Odvětví (obor činnosti)	3 Průměrný evidenční počet pracovníků (bez žen na mateřské dovolené)	4 Přírůstek; úbytek (—) proti 1. čtvrtletí 1979		6 Průměrná mzda v Kčs (na fyzické osoby)	7 Přírůstek proti 1. čtvrtletí 1979	
		5 abs.	v %		abs.	v %
8 Soc. sektor národního hospodářství (bez JZD)	6 514 799	64 103	1,0	2 552	55	2,2
9 z toho:						
10 Průmysl celkem	2 644 144	20 274	0,9	2 703	65	2,5
11 z toho plánovací skupiny:						
12 těžba uhlí	167 546	1 699	1,0	3 870	54	1,4
13 výroba tepla a elektřiny	69 914	1 283	1,9	2 915	47	1,6
14 hutnictví železa	151 859	770	0,5	3 100	101	3,4
15 chemický průmysl	126 602	737	0,6	2 751	114	4,3
16 gumárenský průmysl	36 617	348	1,0	2 637	148	1,9
17 strojírenství	987 882	9 575	1,0	2 706	57	2,2
18 průmysl staveb. hmot	111 667	470	0,4	2 730	71	2,7
19 dřevozpracující prům.	115 686	1 376	1,2	2 445	66	2,8
20 prům. skla a keramiky	85 029	516	0,6	2 308	56	2,5
21 textilní průmysl	215 312	1 109	0,5	2 239	79	3,7
22 konfekční průmysl	54 534	—19	—0,0	2 210	83	3,9
23 kůže, obuv, kožešiny	83 568	19	0,0	2 415	56	2,4
24 potravinářský průmysl	212 437	633	0,3	2 416	48	2,0
25 Stavebnictví	550 765	2.173	0,4	2 816	44	1,6
26 Projektové organizace	50 307	1 524	2,9	2 963	16	0,5
27 Státní statky	151 454	—691	—0,5	2 415	78	3,3
28 Státní lesy	82 875	—214	—0,3	2 810	112	4,2
29 Železniční doprava	208 612	602	0,3	2 877	39	1,4
30 Automobilová doprava	101 562	789	0,8	2 867	48	1,7
31 Spoje	118 204	1 603	1,4	2 246	51	2,3
32 Maloobchod	230 638	3 954	1,7	2 071	44	2,2
33 Veřejné stravování	152 570	1 756	1,2	1 964	50	2,6
34 Komunální podniky	127 785	525	0,4	2 135	31	1,5
35 Školství	404 176	8 476	2,1	2 326	80	3,6
36 Zdravotnictví	301 763	6 129	2,1	2 369	53	2,3

Key:

1. Number of Employees and Average Wages in Principal Branches in 1st Quarter of 1980
2. Branch (type of activity)
3. Average recorded number of employees (without women on maternity leave)
4. Increase; drop (-) compared with 1st quarter 1979
5. Absolute -- in %
6. Average wage in korunas (per physical person
7. Increase over 1st quarter 1979
8. Socialist sector of the national economy (without JZDs)
9. Of which
10. Industry overall

Key (continued):

11. Of which planning groups
12. Coal extraction
13. Heat and electricity production
14. Iron metallurgy
15. Chemical industry
16. Rubber industry
17. Engineering
18. Construction materials industry
19. Lumber industry
20. Glass and ceramics industry
21. Textile industry
22. Clothing industry
23. Leather, footwear, furs
24. Foodstuffs
25. Construction industry
26. Designer organizations
27. State farms
28. State forests
29. Rail transport
30. Automobile transport
31. Communications
32. Retail trade
33. Public eating places
34. Communal enterprises
35. Education
36. Health care

The average monthly wage of workers in the socialist sector of the national economy (without the JZDs) rose in the first quarter over the same period last year by 56 korunas (2.2 percent) to 2,552 korunas which reflects the planned growth of the average monthly wage for 1980 (2.2 percent without reserves for political wage measures, 2.4 percent when including these reserves). In the Czech Socialist Republic the average pay rose by 2.2 percent to 2,560 korunas, in the Slovak Socialist Republic pay also rose by 2.2 percent to 2,533 korunas.

Of the production branches, the largest rise in average compensation occurred in the state farms (3.3 percent) and state forests (4.2 percent), in the non-production branches in education (3.6 percent) as a result of wage adjustments of 1 September 1979.

In the desirable relations there is not yet sufficient development between the growth of wages and labor productivity. In industry the average wage rose by 2.5 percent to 2,703 korunas, that is, by 0.2 point more than the growth planned for 1980. While labor productivity rose by 5.2 percent (annual planned rate is 3.2 percent), due to low labor productivity during the 1st quarter of last year, the current pace of growth is still insufficient.

1 **Struktura průměrné měsíční mzdy v hlavních výrobních odvětvích a index růstu produktivity práce v průmyslu a ve stavebnictví v 1. čtvrtletí 1980**

2 Odvětví (obor činnosti)	3 Průměrná měsíční mzda v Kčs					10 Index²) produktivity práce
	4 celkem		5 v tom			
	6 absolutně	7 index¹)	8 základní mzdy vč. příplatků a náhrad	prémie a odměny z nákladů 8a	9 fond odměn	
11 Průmysl celkem	2 703	102,5	2 141	446	116	105,2
12 z toho plánovací skupiny:						
13 těžba uhlí	3 870	101,4	2 889	707	274	98,6
14 výr. tepla a elektřiny	2 915	101,6	2 377	382	156	107,5
15 hutnictví železa	3 100	103,4	2 417	490	193	102,3
16 chemický průmysl	2 751	104,3	2 198	459	94	105,1
17 gumárenský průmysl	2 637	101,9	2 056	520	61	109,3
18 strojírenství	2 705	102,2	2 189	431	85	106,5
19 průmysl staveb. hmot	2 730	102,7	2 188	430	112	113,9
20 dřevozpracující prům.	2 445	102,8	1 898	448	99	109,9
21 průmysl skla a keramiky	2 308	102,5	1 874	377	57	108,2
22 textilní průmysl	2 239	103,7	1 735	432	72	107,5
23 konfekční průmysl	2 210	103,9	1 783	366	61	106,4
24 kůže, obuv, kožešiny	2 415	102,4	1 917	472	26	104,2
25 potravinářský průmysl	2 416	102,0	1 893	340	183	102,0
26 Stavebnictví	2 816	101,6	2 329	394	93	106,5
27 Projektové organizace	2 963	100,5	2 412	305	246	.
28 Státní statky	2 415	103,3	2 123	154	138	.
29 Státní lesy	2 810	104,2	2 141	455	214	.
30 Železniční doprava	2 877	101,4	2 486	354	37	.
31 Automobilová doprava	2 867	101,7	2 500	232	135	.
32 Spoje	2 246	102,3	1 864	290	92	.
33 Maloobchod	2 071	102,2	1 741	166	164	.
34 Veřejné stravování	1 964	102,6	1 675	157	132	.

35 ¹) V % podíl průměrné mzdy za 1. čtvrtletí 1980 a 1979.
36 ²) V % podíl produktivity práce za 1. čtvrtletí 1980 a 1979.

Key:

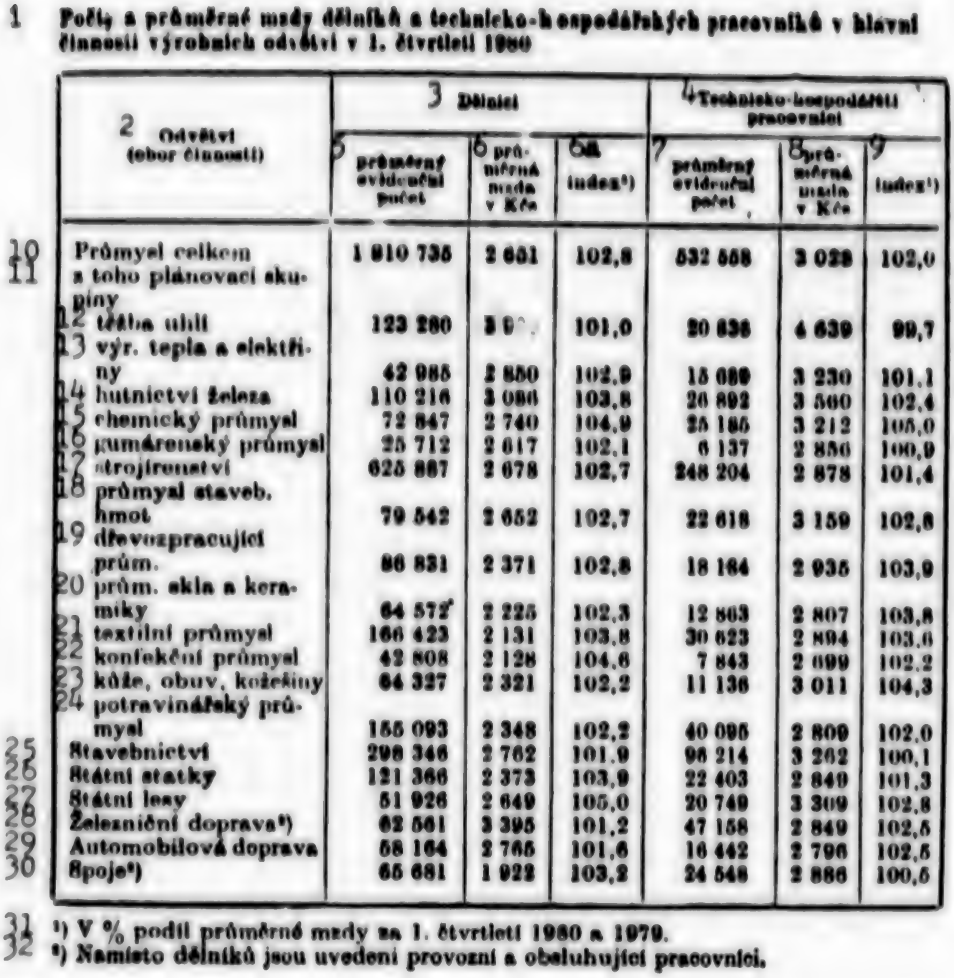
1. Average monthly wage structure in the principal production branches and index of labor productivity growth in industry and construction in 1st quarter of 1980
2. Branch (type of activity)
3. Average monthly wage in korunas
4. Overall
5. In this
6. Absolutely
7. Index¹
8. Base pay including differentials and compensation
8a. Premiums and rewards from outlays
9. Special compensation fund

Key (continued):

10. Index[2] of labor productivity
11. Industry overall
12. Of which planning groups
13. Coal extraction
14. Heat and electricity production
15. Iron metallurgy
16. Chemical industry
17. Rubber industry
18. Engineering
19. Construction materials industry
20. Lumber industry
21. Glass and ceramics industry
22. Textile industry
23. Clothing industry
24. Leather, footwear, furs
25. Foodstuffs
26. Construction industry
27. Designer organizations
28. State farms
29. State forests
30. Rail transport
31. Automobile transport
32. Communications
33. Retail trade
34. Public eating places
35. [1]In % share of average wage for 1st quarter 1980 and 1979
36. [2]In % share of labor productivity for first quarter 1980 and 1979

A similar situation exists in the construction industry where the growth of labor productivity for the 1st quarter was 6.5 percent and exceeds by 2.9 points the planned pace for the whole year. However, calculations show that to fulfull the plan for the whole year, the growth in the first quarter should have been considerably higher. The average pay in the construction industry during the first quarter rose by 1.6 percent, that is, 0.5 point less than the planned growth for the whole year.

Not even the April 1980 results met planned espectations, as shown by data for the first 4 months of this year. Even though this period included 1 working day more than last year, the labor productivity index in industry was 5.2 percent, and in construction only 5.1 percent. The average wage in industry rose by 3.0 percent, and in construction by 2.4 percent.



1 Počty a průměrné mzdy dělníků a technicko-hospodářských pracovníků v hlavní činnosti výrobních odvětví v 1. čtvrtletí 1980

2 Odvětví (obor činnosti)	3 Dělníci			4 Technicko-hospodářští pracovníci		
	5 průměrný evidenční počet	6 průměrná mzda v Kčs	6a index[1])	7 průměrný evidenční počet	8 průměrná mzda v Kčs	9 index[1])
10 Průmysl celkem	1 910 735	2 651	102,8	532 558	3 028	102,0
11 z toho plánovací skupiny						
12 těžba uhlí	123 280	[illegible]	101,0	20 836	4 639	99,7
13 výr. tepla a elektřiny	42 985	2 850	102,9	15 089	3 230	101,1
14 hutnictví železa	110 216	3 086	103,8	26 892	3 560	102,4
15 chemický průmysl	72 847	2 740	104,9	25 185	3 212	105,0
16 gumárenský průmysl	25 712	2 617	102,1	6 137	2 856	100,9
17 strojírenství	625 887	2 678	102,7	248 204	2 878	101,4
18 průmysl staveb. hmot	79 542	2 652	102,7	22 618	3 159	102,8
19 dřevozpracující prům.	86 831	2 371	102,8	18 184	2 935	103,9
20 prům. skla a keramiky	64 572	2 225	102,3	12 863	2 807	103,8
21 textilní průmysl	166 423	2 131	103,8	30 623	2 894	103,6
22 konfekční průmysl	42 808	2 128	104,6	7 843	2 699	102,2
23 kůže, obuv, kožešiny	64 327	2 321	102,2	11 136	3 011	104,3
24 potravinářský průmysl	155 093	2 348	102,2	40 095	2 809	102,0
25 Stavebnictví	298 346	2 762	101,9	96 214	3 262	100,1
26 Státní statky	121 366	2 373	103,9	22 403	2 849	101,3
27 Státní lesy	51 926	2 649	105,0	20 749	3 309	102,8
28 Železniční doprava[2])	62 561	3 395	101,2	47 158	2 849	102,5
29 Automobilová doprava	58 164	2 765	101,6	16 442	2 796	102,5
30 Spoje[2])	65 681	1 922	103,2	24 548	2 886	100,5

31 [1]) V % podíl průměrné mzdy za 1. čtvrtletí 1980 a 1979.

32 [2]) Namísto dělníků jsou uvedeni provozní a obsluhující pracovníci.

Key:

1. Numbers and Average Wages of Workers anc Techno-Economic Personnel in the Principla Activity of the Production Branches in the 1st Quarter of 1980
2. Branch (type of activity
3. Workers
4. Techno-economic personnel
5. Average control number
6. Average wage in korunas

6a. Index[1]

7. Average control number
8. Average wages in korunas
9. Index[1]
10. Industry overall
11. Of which planning groups
12. Coal extraction
13. Heat and Electricity production

Key (continued):

14. Iron metallurgy
15. Chemical industry
16. Rubber Industry
17. Engineering
18. Construction materials industry
19. Lumber industry
20. Glass and ceramics industry
21. Textile industry
22. Clothing industry
23. Leather, footwear, furs
24. Foodstuffs
25. Construction industry
26. State farms
27. State forests
28. Rail transport[2]
29. Automobile transport
30. Communications[2]
31. [1]In percentage, share of average wage for first quarter 1980 and 1979
32. [2]Listed are operations and service personnel, instead of blue collar workers

Development in labor productivity was negatively influenced by a drop in the utilization of available working hours due to sick leave. During the first quarter the utilization in industry, compared with last year, dropped from 91.3 percent to 90.5 percent, and in construction from 90.5 to 90.1 percent, which represents for both branches 822,000 idle days.

The economic organizations recorded for the 1st quarter of 1980, in dependence on the prescribed indicators of regulation, overall compensated savings in wages and other personal outlays (MOON) in the amount of 439 million korunas, that is, 1.1 percent of their usable volume. The usable MOON was exceeded by 468 organizations in the overall amount of 287 million korunas.

9496
CSO: 2400

CSR AGRICULTURAL LAND RECLAMATION, SOIL IMPROVEMENT EFFORTS

Prague SVET HOSPODARSTVI in Czech 20 Jun 80 pp 1-2

[Article by Engineer Michal Pavluv, Czech Bureau of Statistics: "A Significant Reserve in Our Agricultural Production"]

[Text] As the basic resource of agricultural production and thus, also one of the vital links in the production of food for the population, soil requires continuous, determinate care and protection. Land reclamation and soil improvement programs in particular are among the basic factors in caring for soil and systematically improving its productivity. Another task in the care of soil is its rational exploitation and reduction of its losses to a socially unavoidable level.

Despite some positive results, thus far we have not been successful in mitigating the adverse development as concerns losses of the agricultural land fund. In 1971-1977, annual losses of agricultural lands in the Czech Socialist Republic amounted on the average to approximately 5,200 hectares. In 1978, they increased to 16,300 ha and in 1979 to as much as 18,200 ha. More than 10,000 ha of arable lands were lost, which makes it the highest loss in the past 40 years. The losses in the past year amount to more than a quarter of the total area of 71,200 ha of agricultural lands by which the agricultural land fund has been reduced in the 1971-1979 period. The greatest losses occurred in 1979, in ascending order, in the krajs of South Moravia, West Bohemia, North Bohemia, and Central Bohemia. Last year 12,500 ha of agricultural lands and 8,000 ha of arable lands were lost in those krajs. Next to the capital city of Prague, the lowest loss of agricultural lands was reported in East Bohemia Kraj (1,269 ha). South Bohemia Kraj was the only one to report an increase of arable lands by almost 800 ha.

The great losses of agricultural funds represent above all a phenomenon accompanying intensive capital investment, building of modern communication systems, development of urban complexes, etc. Experience has confirmed that lands are not always appropriated with the effort to preserve the largest possible area of agricultural lands for primary agricultural production. For instance, demands were made that 120 ha of the best agricultural lands be appropriated for the planned construction of reservoirs in Decin, however, a review by experts has shown that only 37 ha of meadows and grazing lands would be sufficient for the program. Cultivated lands were recently lost also in agriculture itself, because certain agricultural enterprises try to remove from the agricultural land fund small acreages, less fertile lands, hillside lands or temporarily devastated areas. Therefore, the demands of agricultural enterprises for exclusion of lands from the agricultural land fund have recently risen very sharply. Because the acreage of the agricultural land fund is a factor limiting further expansion of agricultural production, the question of the management of the agricultural land fund has become the focus of interest of high-level party and government organs. The government of the CSR announced measures for more intensive and comprehensive protection of the agricultural and forest land fund in investment programs, for proper exploitation of all agricultural lands for agricultural production, and for planned soil improvement of appropriate land reserves, which will help remedy the situation.

In the fourth year of the Sixth Five-Year Plan additional drainage, irrigation and soil improvement capacities have been turned over to our agriculture. In the first 3 years of the five-year plan almost 38,000 ha were added to the acreage of 116,900 ha of drained lands, which increased the acreage of drained lands to 154,700 ha. This represents an average annual capacity in the amount of 38,700 ha of drained areas. If the current rate of drainage construction is not increased in the last year of the Sixth Five-Year Plan, the program of the Sixth Five-Year Plan will be fulfilled, but not so the task of the 15th CPCZ Congress which calls for draining of an additional 40,000 ha of waterlogged areas.

Although 955 ha of drained areas were transferred to primary agricultural production above the plan for 1979, the completely drained areas decreased 5.4 percent as compared with 1978. More than 25 percent of the drainage programs in the CSR were completed in South Bohemia Kraj. The planned target of 9,707 ha was met in that kraj at 103.2 percent. The best fulfillment of the plan for construction was reported in South Moravia Kraj. The 4,567 ha of drainage operations completed represent overachievement of the plan by 7.5 percent.

More than Kcs 601 million was spent last year for the construction of the drainage detail. In conversion per hectare, the costs of drainage projects in the agriculture of the CSR in 1979 amounted to Kcs 15,600, as compared with the actual achievements of Kcs 12,900 in the last year of the Fifth Five-Year Plan, and with Kcs 10,900 in 1971. The increase in costs per unit was caused mainly by the fact that the drainage programs are being relegated increasingly more to hillside and mountainous areas, in other words, to areas with more difficult natural and operational conditions. The use of new materials and more efficient technology in drainage programs will raise the costs even further. Nevertheless, more attention must be paid to this problem even during the preparation stage. Every planned reclamation program must be preceded by a thorough hydrological survey and economic evaluation of the advantages of the program under consideration. Adherence to cost policies, selection of the most suitable technical methods of reclamation, and implementation of advanced, yet relatively inexpensive methods of construction represent additional opportunities for cutting the costs of construction in reclamation programs.

As compared with drainage construction, the achievements in the construction of irrigation systems completed last year is the largest ever achieved in the building of the material and technical base for agriculture in the CSR. The most extensive irrigation systems were completed last year in South Moravia Kraj; the 3,400 ha of irrigation systems completed in that kraj represent nearly two-fifths or the capacities completed in the CSR, and it is precisely South Moravia Kraj which, together with Central Bohemia Kraj, participated to the greatest extent in surpassing the plan for construction in 1979 and creating preconditions for the fulfillment of the task stipulated by the 15th CPCZ Congress. As a matter of fact, 26,500 ha of irrigation systems were completed in the 4 years of the Sixth Five-Year Plan, which is nearly 95 percent of the assigned task. Next to the traditional method of construction, mobile irrigation systems introduced in the Sixth Five-Year Plan also contributed toward a successful completion of construction programs. This system makes it possible to extend irrigated acreage to other areas and to utilize small reservoirs and other water resources. Furthermore, mobile irrigation systems have an economic impact. In 1979, Kcs 149.5 million was spent for 9,072 ha of completed works, which represents Kcs 16,500 per ha. These costs dropped 5.4 percent as compared with 1978 and up to 40 percent as compared with the last year of the Fifth Five-Year Plan.

In this context, it should be stressed that it is necessary to speed up the rate of construction of reservoirs and ponds for irrigation, built to supply water for irrigation systems. As compared with the average for the Fifth Five-Year Plan, during which irrigation reservoirs and ponds with a total capacity of 469,000 cubic meters were built, the actual achievement last year amounted to a mere 244,000 cubic meters, and the plan was fulfilled at 45.6 percent. A considerable decline was noted also in comparison with the preceding year, when nearly 640,000 cubic meters of such installations were built. More than four-fifths of the total capacity of reservoirs and ponds completed in 1976-1979 (1,326,100 cubic meters) have been built in South Moravia Kraj. More attention must, therefore, be paid to the construction of additional sources of water, especially in conjunction with expanded irrigation systems for average and small areas in other parts of our republic. Reserves exist in such systems for increased cultivation of agricultural crops.

Considerable attention has focused in recent years on raising productivity of lands by means of noninvestment soil improvement programs. The highest amount in the last 4 years of the five-year plan, representing Kcs 905 million, was spent for such programs, and the planned tasks of such programs were fulfilled at 102.6 percent. The volume of investments in those programs increased 16.2 percent against 1978. The importance of noninvestment soil improvement programs is attested also by other facts. The share of noninvestment programs in overall expenditures for soil improvement last year already reached nearly 46 percent as compared with 26 percent in the last year of the Fifth Five-Year Plan, which is proof that one of important reserves in intensified crop production involves additional expenditures for soil improvement in the form of noninvestment programs, particularly for reclamation and liming.

The total area of reclaimed lands in 1979 amounted to 68,175 ha of agricultural acreage, 55 percent meadows and grazing lands, and 31 percent sandy and heavy soils. Last year 9,307 ha were added to the 19,600 ha of thus far uncultivated lands reclaimed in 1976 to 1978. Most of those programs were implemented in the krajs of West Bohemia and South Moravia, the least in East Bohemia Kraj.

Reclamation of meadows and grazing lands also continued successfully last year. Considerable reserves appear there in conjunction with a further increase of fodder yields. The nearly 75,400 ha reclaimed during the 1976-1978 period were expanded by an additional 40,000 ha by investment of Kcs 263.1 million. Here the best results were achieved in North Moravia Kraj (8,842 ha reclaimed), the least were reported in North Bohemia Kraj with 2,895 ha of reclaimed meadows and grazing lands.

Operations aimed at the modification of adverse soil reaction in the form of liming achieved satisfactory results. The acreage on which this soil improvement program was completed last year amounted to 154,000 ha. The sum of Kcs 93 million earmarked for such operations was exceeded by almost Kcs 33 million. This sizeable increase of liming is confirmed by the fact that 557,000 ha on which liming was completed in the 1976-1979 period was a full 53 percent above the results of the entire Fifth Five-Year Plan. Despite this positive evidence, more attention must be paid to such operations, because modification of soil reactions by means of liming is not only a factor limiting the effect of applied fertilizers but also a precondition for the maintenance and gradual improvement of the structure and physical and absorptive properties of our lands.

In general, in spite of some partial shortcomings, the development of reclamation and soil improvement programs in the agriculture of the CSR proceeded successfully in the penultimate year of the Sixth Five-Year Plan, just as in its preceding 3 years. In conversion per hectare, Kcs 1970.5 million spent for soil improvement of the agricultural land fund in 1979 represent investments of Kcs 455, as compared with Kcs 316 for 1975, and with Kcs 234 in 1971. This comparison is another proof of the concern of our party and governmental organization for further improvement of agricultural lands, and represents one of the ways to increase our own production of crops, while fulfilling the basic tasks of our agriculture--expanding our self sufficiency in food consumption and satisfying the needs of our population even more comprehensively.

9004
CSO: 2400

WEST GERMAN EVALUATION OF NEW GDR PLAN CALCULATION METHODS

Duesseldorf WIRTSCHAFTSWOCHE in German Vol 34 No 22, 30 May 80 pp 27, 30

[Unattributed article: "GDR Planning: Lowkeyed Reform; Top GDR Economists Have Developed New Plan Calculation Formulas. These Are Not Only Intended To Correct Inconsistent Results, but Also To Establish True Economic and Industrial Data"]

[Text] On Radio GDR I Dr Karl-Heinz Gerstner, East Berlin's best known business commentator, offered his listeners an example of the old established practice of plan reporting: "Let us assume M100,000 construction costs were budgeted for a building. The construction workers succeed in cutting the time needed for construction or, by innovator suggestions, lower the consumption of materials. The building now costs only M90,000. As a result the plan of the construction enterprise has not been met in terms of value. If the workers had been slower and construction more expensive, the plan would have been fulfilled."

Such methods, reminiscent of Till Eulenspiegel's merry pranks, have been the subject of complaints in the GDR for years past, and not only by the public but also by the party and government agencies. As far back as 1963 the national economic council admitted that a "faulty circulation" had entered the national economy. In fact for 30 years industrial goods production (IWP) was the main criterion of plan fulfillment.

Magdeburg listener Kurt Krause then asked Gerstner how anyone could talk of plan fulfillment if an enterprise was compelled to warehouse its products because they were unsaleable: "Is the plan fulfilled if the prescribed volume is achieved but not the expected financial result?"

Gerstner had to admit: "In theory this fault has long been recognized, but in practice it has been very difficult to depart from the traditional reporting method IWP goods production and have plan fulfillment depend also on other important, that is qualitative, indices."

GDR economists now believe that they have managed the feat of socialist plan reporting reform. The SED Politburo and the GDR Council of Ministers decided in the future assessment of plan fulfillment to consult net production and the costs of materials per M100 goods production in addition to goods production per se.

Gerstner explained that net production is to represent the genuine contribution of the enterprise to the end product: If, for example, a cement mill records that 90 percent of material is supplied from the outside, only 10 percent of the final value represent the net output and thus the enterprise performance.

Dr Guenter Mittag, the top economist-politician in the GDR, comments the new plan reporting methods as follows: "They do away with the possibility for the plan targets to be achieved or exceeded by unduly high materials use and the unjustified extension of cooperation. The conservation of raw materials, other materials and energy results in lowering costs and raising the net output. This allows the index figure (that is net production--author's note) to reflect the initiatives for lowering production consumption, and they will then be taken into account when appraising the enterprise performance."

In other words: To be discontinued is the one-sided appraisal of enterprise performance by the volume of goods production expressed in marks and pfennigs.

This improvement was first mooted as early as 1963 when the new economic planning and managing system (NOeSPL) was introduced only to be abandoned for political reasons. At that time profit was to be the chief index figure in order to do away with the "ton ideology," that is the reporting and enterprise effort directed entirely to output volume.

This stage of the reform has not yet been reintroduced. Mittag said cautiously "that planning will be perfected to the extent that the organization of the developed socialist society advances." Justifying the new plan reporting methods by claiming that the enterprises must derive benefits from that which profits the national economy (such as materials conservation), he almost literally repeats one of the principal slogans of the 1960's reform.

Not to cause too much of an uproar in the party leadership and with Big Brother--and thereby possibly arousing resistance--, the new economic reform is kept very lowkey--faithful to Lenin's precept: "Three steps forward, two back." Carefully eschewed is the inflated rhetoric which earlier accompanied the new economic system.

Unless political doctrinaires once again prevail over the economists, the reform is bound to effect crucial changes. It may well free considerable sections of the economic capacity fettered by the old management and planning methods.

In any case, the people actually involved in the running of the economy, immediately welcomed the quiet but courageous reform. The general directors of the 129 new-style combines which command some 90 percent of the GDR's industrial and construction capacity in fact voiced even farther reaching demands. General Director Manfred Beier of the Knit Goods Combine, Karl Marx Stadt, for example, claimed in NEUES DEUTSCHLAND: "When, for example, favorable export opportunities arise for certain products, we are now not always able quickly and efficiently to react because prior central decisions are required--although we are willing to fully guarantee the planned supply of the public with regard to these items. Why should we not be able independently to decude such issues in our combines?"

The status of the combine generals (see WIRTSCHAFTSWOCHE 1/2, 1980) is thus so strong now that a knitgoods man may unconcernedly attack centralism, one of the most sacred of party cows. Once again confirmed thereby is Mittag's thesis that the socialist planned economy has been "given a new base" by the establishment of the combines, and that "this is not just a matter of formal change."

Whether in fact the new methods of plan reporting will result in more than formal change must depend on the eventual victor in the tug-of-war between the practical managers in the enterprises and the conservative system doctrinaires.

11698
CSO: 2300

SHORTCOMINGS IN REALIZATION OF CEMA PROGRAMS SCORED

Budapest MAGYAR NEMZET in Hungarian 9 Jul 80 p 9

[Article by Dr Mihaly Patai: "Complex Problems--Complex Solutions"]

[Text] At its 34th session on 17-19 June 1980 in Prague, CEMA analyzed the situation and future of socialist international cooperation. The importance of the session was increased by the fact that, on one hand we are in the final year of the 1976-1980 plan period, and on the other hand, important changes occurred in 1980 in the internal and external condition system of CEMA.

The Internal Condition System

In the internal condition system of socialist cooperation, let us stress the problems of economic growth, energy, intra-CEMA trade, and specialization-cooperation.

In examining the growth rates of the economies, we can make two important statements. On one hand, the socialist countries (as compared to the capitalist world) had relatively high rates of growth; in this sense, a direct effect of the capitalist recession cannot be demonstrated. On the other hand, however, a gradually decreasing growth rate is evident in every country without exception. This is true of the most dynamic economy, the Romanian, as well as of the most balanced USSR economy. As a consequence of this slowing down, the fulfillment of the current five-year plans will represent an increasingly more difficult task. In light of the factual data for 1978-1979, it appears that there will be no country which will fully carry out the 1976-1980 five-year plan.

Several years after the peak of the capitalist energy crisis, the socialist countries also devoted more and more attention to energy, which emerges as a shortage problem (in most countries there is a worsening in the ratio between energy produced and energy needed) and as an efficiency problem. In regard to the latter, it is well known that the socialist economies use considerably more energy per unit of the social end product than do the developing capitalist countries.

In general, the energy problem has not led to a shortage; but energy prices have risen, and education to conserve energy has been increased. This can be ascribed to the fact that the coordination of production and consumption has become possible, and thus, even at the end of the 1970's CEMA remained the most independent region in the world economy. The energy autonomy of the community rests on the ampleness of USSR natural resources, and the future will also depend basically on the Soviet Union. In the coming years, it will not be possible fully to meet the demands of the European member states within the present structure. As a consequence of this, the volume and importance of energy coming from the developing countries may increase.

Intra-CEMA commercial trade gradually expanded in the past decade. The radial nature of internal commerce has remained the same: there is no easing in the difference between the "center" and the "periphery." The member states are linked in a definitive manner, with commodity structures similar to the Soviet Union's. At the same time, the relationships among the small countries are lagging behind the possibilities presented by the economic-geographical conditions.

The non-European member countries maintain significant relations only with the Soviet Union. (Here we encounter an extreme instance of the foregoing statement.) This fact suggests that with respect to the future expansion of the community, the problems of these member states must be handled separately from the others--not only in individual cases, but also in the conceptual sense.

It is well known that CEMA cooperation is one of the most important goals in the expansion of socialist international work distribution with the help of specialization and cooperation. Concrete decisions were made in the 1960's. For example, Hungary began to specialize in the manufacture of buses and, among other things, gave up manufacture of the then popular "Szatmar" radio in favor of Bulgaria. But the ideas regarding specialization and cooperation could not be fully realized: parallel producer capacities are still characteristic of the CEMA member states. (The most significant example of this is the parallelism in the above-mentioned bus capacities.) In the second half of the 1970's, specialization-cooperation again came into the center of attention of the experts and official CEMA forums.

Special programs must be handled as an indivisible category of CEMA specialization-cooperation. The 1975 CEMA session determined the long-range special programs extending to 1990. The goal of these programs was to strengthen the integration among the member states, the satisfaction of needs in the common interest, and the working out of the methods of cooperation. Up to now the CEMA countries have worked out five special programs: namely, in the field of fuel energy equipment, machine manufacture, transportation, food economy, and manufacture of consumer industrial items. In the program areas, for the time being, they have marked out the main lines of the solutions and the possible forms of cooperation. The concrete realization of the programs (the working out of the so-called basic programs) is occurring under bilateral agreements.

It would be premature to predict the results in realizing special programs. One matter, however, provides unconditional food for thought: neither in theory nor in practice do the special programs include qualitatively new elements. A great danger exists that the special programs will not reform the deeply embedded bases for the development and proliferation of existing irrational production parallels; it is to be feared that the special programs only represent purely formal advances.

External Circumstances

In the 1970's we were witnesses to radical world economic changes. Naturally, this also had an effect on the socialist countries and surfaced the already existing, strained contradictions of socialist management. As an "imported manifestation" of the capitalist crisis appeared as a new influence in the economic practice of the socialist countries. As firmly pointed out by Gyorgy Lazar at the 12th Party Congress, the excessive optimism of the economic and political leaders regarding defensibility against the unfavorable effects of the capitalist crisis also caused detrimental results.

One of the determining factors of this era was the enlivening of East-West relations. Through this channel the CEMA countries are trying to start the intensive-type growth model necessary for acquiring technology that cannot be obtained within the socialist community. At the same time, these relationships appeared as the cause of the disintegration process taking place within CEMA. The disintegration is prominently manifested in the declining importance of trade among the members, the open or concealed stimulation of capitalist export, and, as a consequence of this, the strong competition of the CEMA member states with one another on the world market.

By the second half of the 1970's the expansion of East-West trade, which had been regarded as the most dynamically increasing sector of world trade, slowed down. This can be ascribed to a number of factors. First among these was the growing rigidity in the world political situation and the slowing down of the process of detente. The accumulated indebtedness of the socialist countries became a restraining factor, as did the prolongation in the unfolding of the capitalist cycle and the strengthening in the position of a group of developing countries, as well as the increasing interest of the developed capitalist states in these economies. In general, the experts--because of the continuation of the above-mentioned causes--do not expect a dynamic development in East-West relations in the next 5-10 years.

In the past 6-8 years, in the years of changes, we have not succeeded in improving our world economic position. A relatively closed formula appropriate to the new power relations was established in the world in which a significant part of the positions laid out by the socialist countries was taken over by the more developed countries of the Third World. Today the most important problem of the socialist countries has come to be the narrowed area of foreign economic mobility, which of necessity indicates quality changes in the cooperation among the socialist states. To make further advances, however, in every area of economic life--in planning, production, the foreign trade system, and the foreign exchange and financial sphere--we have to find the appropriate means, forms and incentives.

Comparing everything, a number of signs indicate that the socialist countries--to use a common expression--have come into a new situation from where further progress is decisive for the next decades. Bust we must unconditionally let it be understood that the new situation is not really new, for the problems that come nowadays into being, existed earlier as well and formed a part of socialist management.

Comprehensive Changes Are Necessary

In the present state of CEMA cooperation, the well known complex problems which embrace the entire economy--for example, beyond the actual economic difficulties, the parallel producer capacities which have developed in CEMA and the uncoordinated stand, as a result, on world markets; the shortcomings in the system of internal guidance; as well as the problem of work discipline--require complex solutions. At the determining points of cooperation we must advance along the entire profile: decisions affecting detailed problems can bring results only over the short run. This idea was stressed by the Hungarian prime minister in his remarks in Prague.

We can, and we must, respond to the requirements raised by the new, altered conditions in a manner different from what has been tried before at every level of the economic pyramid (investment, production, commerce, and the foreign exchange and financial sphere).

According to the lessons of socialist economic history, the strengthening of the role of the commodity and money categories is an objective process in a given phase of the economy. It cannot be exactly evaluated what kind of role will be played by the value categories. But one thing is certain: in the future we must find adequate production relations for the transition period (for the period we also are living through).

Recently, more and more experts have been advocating more direct cooperation among the managing units (enterprises) and the promotion of so-called micro-integration relationships. Without any doubt we must move ahead also in the field of developing communications relations, by which we mean every information acquisition possibility from the liberalization of citizens' relationships to information flow at the government level. And finally, it is also necessary to develop price, financial and foreign exchange relations which will conform to and influence economic processes, which would expand the economic policy inventory, guaranteeing it in the final analysis a greater area of mobility.

6691
CSO: 2500

REASONS FOR ENTERPRISES' FAILURE TO ACCUMULATE FUNDS SCORED

Budapest FIGYELO in Hungarian No 28, 9 Jul 80 p 5

[Article by Eva Szabo and Dr Istvan Mezei: "Management With Insufficient Funds and Its Causes"]

[Text] The Department of Revenue Administration in the Finance Ministry annually examines the management of the units showing the most significant lack of funds for dividends and development, studies the reasons which have caused such management to have insufficient funds, and summarizes its experiences in resolving [those situations].

In the national economy, 47 economic organizations closed the year 1979 with a total deficit of 74 million forints in dividend funds, while 24 enterprises had a total deficit of 2 billion forints in development funds (not including agricultural cooperatives, savings cooperatives, branch enterprises of trusts, and waterworks associations).

National Tendencies

The total deficit in dividend funds is 56 percent lower than in the previous year, and the number of deficient units dropped from 51 to 47. The frequency and amount of deficits in funds grew significantly in agriculture: more than two-thirds of the total fund deficits came from this branch of the national economy. In the other branches, and specifically in industry, a reduction took place.

The number of organizations with a deficit in development funds grew relatively significantly (by eight), whereas the total deficit grew by only 8 million forints. The great majority of the deficits in development--more than 90 percent of the deficit--was concentrated in eight industrial enterprises of ministries, specifically in a few large enterprises.

At first glance one could conclude from this that we are talking about a favorable phenomenon, since in comparison to previous years, there is no essential "change in direction," and in total, the deficit in funds even continues to decrease. The evolution of economic quality indicators, however, draws attention to another thing. It concerns the fact that the unfavorable external influences which affected the national economy in 1979 had less influence at the level of the microsphere. From the result of a financial and economic audit performed on 25 economic units, it became clear that the deficits in funds were not caused by single factors in each case, but by the combined effect of several causes pointing expressly to deficiencies in management and enterprise leadership. One concludes from this that the difficult financial situation of the deficient enterprises is not the result of a single year of bad management. In most of the enterprises studied problems had already appeared (for example, five enterprises had repeated dividend-fund deficits, three had repeated development-fund deficits, and one unit had an overall loss).

The fundamental reason for the occurrence of deficits in funds was that the enterprises' results were unfavorable. Out of the 25 units examined, the results of 23 of the enterprises had deteriorated. A smaller profit necessarily gives fewer possibilities for generating funds. In five enterprises the decline in results was so great that the operation resulted in a loss, in which case there was no way to generate funds.

The unfavorable results were caused, first of all, by the fact that the managers were unable to increase production and sales income sufficiently, and in some cases a decline relative to the previous year occurred. This is a warning signal for 1980 as well, since it is known that the provisions of the national economic plan in general do not give possibilities for strong growth: in fact, in some units a decline in sales income must necessarily take place. In the evolution of the 1979 situation, problems in quality and late deliveries of imported materials played a role, as did the relaxing of internal demand, the reduction in numbers of production workers, the reluctance of business to accept goods at the end of the year, and not least the lack of coordination in production throughout the year.

The Errors and Their Background

Among the errors of management and enterprise leadership, we should mention first laxity in managing expenses. For example, more than 50 percent of the increase in unpaid expenses (which occurred in 10 units) were bank expenses, mostly connected with inadequate inventory management. Increased fines, punishments, interest fees for late payment, and penalties, are continual problems of payment, the result of inability to pay; but we can also mention continuing production of uneconomical goods, unused productive capacity found in many enterprises, and increases in wages out of line with changes in productivity.

Among the 16 units studied with deficits in dividend funds, in eight, excessive wage increases must be mentioned as the primary cause of the deficit, though their role in comparison with previous years has lessened. These increases have come about partly through occasional bonuses (distribution of dividend funds, corrections to base pay) and available reserves and partly because of wage increases mandated by central orders. In a majority of the units studied, wage increases of over 8 percent were realized in 1978 and between 3 and 6 percent in 1979.

However, even this relatively moderate rate of wage increase caused such a burden for the units that they could not generate sufficient funds because of declining productivity and reduced profits. The reduced results thus had unfavorable effects in two directions: the possibility of generating dividend funds was lessened, while at the same time, through unfavorable changes in the economic indicators, the burdens of wage increases did not lessen. Often unjustified wage increases were caused by incautious and insufficiently grounded wage management. There were cases in which, in an attempt to keep the work force intact, the economic limits prescribed in the regulations were exceeded.

In the use of the dividend fund, by the way, the realignment of recent years is continuing: enterprise policy is favoring wage increases during the year at the expense of year-end profit dividends.

Deficits in development funds were usually connected with investments. These deficits appeared partly in developments exceeding the enterprises' capabilities and resulted partly from additional charges on investments. In the enterprises studied, in comparison with the 1.2 billion forints available in 1980 (1.17 billion of their own funds and 65 million from outside), obligated expenditures already total 2 billion forints.

Obligations and Resources

In the financing of investments, credit plays an important role, where conditions for repayment are determined many years before, on the basis of then expected profit positions. But planned results--taking into account trends up to now--will obviously not be realized: diminishing profits are tightening abilities to develop resources. So there will not be enough to cover financing of additional charges, and in addition the fulfillment of obligations to the state and the bank are causing concern. An additional factor in the formation of the deficits in development funds was the attitude of enterprise leadership that did not consider the possibility that available credit and direct state subsidies might be restricted.

Possibilities for Resolution

Most of the enterprises naturally realized during the year that they would have to worry about replenishing the funds, and many of them took steps to avoid or reduce fund deficits. There were methods available for operational intervention to bridge the gap first of all in dividend funds, by holding back on wage increases and by lowering expenses during the year. There were in practice fewer opportunities at hand to lessen development-fund deficits, though the affected enterprises did attempt in distributing their profits in 1979 to give preference to increasing the development fund instead of the dividend fund.

The ideas of the enterprises on resolving the fund deficits do not reflect the fact that the enterprises first of all desire to master their economic problems through their own powers. Of the 25 enterprises studied, 15 plan steps within their own sphere of authority; however, the majority (21) will require partial or complete assistance from external organizations.

Most of the steps to be taken within their own sphere of authority are aimed at making use of reserve funds. Use of reserve funds in 1979 was of substantially greater proportions than in previous years. Also planned among the steps are a reduction or realignment of the work force and temporary suspension of year-end dividends. The most frequent forms of resolution with the aid of supervising organizations is refinancing of credit, the use of newer outside resources (credit secured by anticipated development and reserve funds, as well as various grants), and requesting further subsidies for wage increases.

All of these forms of operational resolution, however, represent only a temporary solution. A final solution will mean improvement in quality indicators of enterprise activity. Stabilization of the economy and improvement of its efficiency can guarantee elimination of the causes that have resulted in the fund deficits However, fund deficits will continue to be "overcome" through refinancing or reorganization (mergers, absorptions) by the directing organizations.

9611
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ORGANIZATION, OPERATION OF MINISTRY OF AGRICULTURE MODIFIED

Budapest MEZOGAZDASAG ES ELELMEZESUGYI ERTESITO in Hungarian No 10, 18 Jun 80 pp 462-463

[Communique of the Main Department of Administration and Legal Affairs]

[Text] Decree No 46/1978. (IX.28.) of the Council of Ministers improved and summarized the general orders dealing with economic branch management and the tasks of the ministers of the economic branches and then, through its Resolution No 2026/1979 (VII.28.), it determined again the tasks and authority of the minister of agriculture and food administration.

These statutory provisions, the changes in the ministry's organization and function, as well as experience, made it necessary to amend and supplement the ministry's 1978 Organizational and Functional Regulation.

The amended regulation came into force on 15 April 1980. It contains the orders referring to economic and official regulation, branch control, professional supervision in the branches, and supervision control.

The objective of the modernization is to increase the efficiency of the ministry's supervisory work in economy, legal affairs, authority and control.

The ministry's order of organization and function proved to be good and thus no fundamental changes were made.

The main changes are as follows:

A Secretariat has been established under the direct supervision of the minister. It functions as a main department.

The Secretariat's Executive Department carries out the tasks of the ministry's former Office of the Secretary, and the Department of Inquest is responsible for keeping the records and controlling the tasks specified by the higher authorities, the resolutions of the Ministerial Council, and the ministry's work plan and control plan, and for coordinating grievance cases and organizing ministerial conferences, etc.

At the end of last year, the Main Departments of Planned Economy and Finances were merged. The tasks of the newly organized Main Department of Planned Economy were exactly specified by the amended regulation.

In addition to its present responsibilities, the Main Department of Cooperatives and Plant Management will carry out in the future the ministerial tasks connected with factory and labor management which have been taken over from the Main Department of Labor and Social Policies. It will be responsible to deal with the losses of the large agricultural plants as well.

On the basis of the statutory provisions dealing with state control, enterprise supervision, and internal control, the regulation reformulated the tasks of the Main Department of Enterprise Control, introducing several amendments and supplements (such as, for example, the implementation at the ministry of the control plan of the Council of Ministers, the implementation at the enterprises of the ministry's annual control plan, and the evaluation of the supervisory committees' reports and proposals).

The tasks of the Main Department of Technology were extended to include the coordination of the technological development of our branches, and the ministerial tasks related to energy conservation and metering.

There are some changes in the regulation with reference to the ministry's operation as well.

Among the ministry's modus operandi, the regulation emphasizes that every department of the ministry, when working out measures, must implement the requirements of verticality and rentability, must encourage branch responsibility, must apply the principles of legislation, and must foster information and propaganda.

Implementing the principles of updating regional state management, the regulation specified the relations between the departments of agriculture and food administration of the megye councils' executive committees, the institutions of specialized control, and the ministry.

The order of supervision of the ministry's departments, taking into account the new deputy minister, is as follows, effective 15 May 1980:

Pal Roman, minister
Secretariat
Main Department of Personnel
Main Department of Supervision

Gabor Soos, state secretary
Main Department of Management and Legal Affairs
Main Department of Organization
Office of Forestry and Logging Industry
Main Department of Hunting and Fishing

Lajos Denes, deputy minister
Main Department of Special Education and Research
Main Department of Veterinary Hygiene and Food Hygiene
Main Department of Plant Protection and Agrochemistry

Imre Kovacs, deputy minister
Main Department of Cooperatives and Plant Management
Main Department of Finances
Main Department of Food Industry

Tibor Lakatos, deputy minister
Main Department of Commerce
Main Department of Enterprise Supervision
Main Department of International Relations

Jeno Vancsa, deputy minister
Main Department of Agriculture
National Office of Land Management and Cartography

Ferenc Vendegh, deputy minister
Main Department of Planned Economy
Main Department of Labor and Social Policies
Main Department of Information

In line with the changes in the ministry's organization and operation, the ministry's representation will be changed in the intergovernment committees and international labor organizations. Thus, for example, the director of the Interportfolio Agricultural Coordinational Committee is Gabor Soos, the director of the ministry's Mechanization Council is Jeno Vancsa, and the director of the Interportfolio Produce Committee is Tibor Lakatos, deputy minister.

9414
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WAYS SOUGHT TO IMPROVE WASTEFUL FODDER MANAGEMENT

Budapest FIGYELO in Hungarian 9 Jul 80 p 13

[Article by Sandor Kovacs: "Fodder Management"]

[Excerpt] The purpose of the reexamination covering the years 1977-1979 was to determine the measures taken by organs with a national competance and by agricultural large farms since the basic survey of 1976 to improve the efficiency of fodder management. To find out the results achieved in the economical use of fodders, the increase of mass fodder production, the utilization of food industry and agricultural byproducts, and in meeting the fodder needs of household and auxiliary farms.

Formation of specific fodder utilization (kg/kg)

	1975		1979	
	average	extremes	average	extremes
Milk production	0.53	0.37-1.14	0.42	0.33-0.85
Beef fattening	5.48	3.64-9.75	4.96	3.42-8.21
Pig fattening	4.34	3.12-5.60	4.19	2.75-5.62
Poultry fattening	2.83	2.17-3.44	2.57	2.16-2.86
Sheep farming	6.96	3.24-11.16	6.39	3.22-9.62

Approximately 10 percent of the country's large farms were recontrolled in 10 counties. In addition, on the basis of the opinions of more than 1,500 small producers, the Central People's Control Committee (KNEB) also evaluated the fodder management of household and auxiliary farms.

Compared to 1975, fodder utilization for animal husbandry rose by 16 percent in 4 years and reached 10.9 million tons in 1979. Within fodder utilization, the quantity of cereals (corn, wheat, and so on) was 9.3 million tons, about 80 percent of the total production. In addition, along with the increase in domestically grown protein fodder (with the exception of 1979), the quantity of imports also increased. The preparation of mixed fodder made through the use of cereals, protein fodders and other fodders rose from 4.8 million tons in 1975 to 6.8 tons in 1979.

In the interest of the economical use of fodders, the Ministry of Agriculture and Food (MEM) proposed in 1978 that the agricultural and food departments of the county councils set up committees with the inclusion of the county forage and animal husbandry authorities. The task of these committees was to review the operation of farms keeping animals where fodder consumption was above the national average, and to make proposals to reduce fodder utilization and even to close down farms operating with a very low efficiency.

Planned imports of albumen fodder decreased by 60,000 tons in 1979. As a result, fodder recipes with protein savings were worked out and introduced. Utilization of domestic protein sources (lucerne flour, oil industry plants) was increased.

Unused Capacity

In the large farms that were surveyed, specific fodder utilization per unit of product on the whole improved since the basic survey. Under the effect of the high- and mid-level measures taken in the years 1978-1979 (establishment of norms and their control, penalties against farms operating with unjustifiably high fodder consumption, working out and introduction of fodder-saving technologies), specific fodder utilization decreased.

In 32 percent of the dairy farms examined, specific fodder utilization is above the norm set by MEM. The 4 to 5 percent surplus utilization can be traced back primarily to the quantitative and qualitative problems of mass fodder production. Since the basic survey made by KNEB, specific fodder utilization improved by 5 to 10 percent in pig, poultry and horned cattle fattening. According to the farms, however, the specific amount of fodder used to produce pork and poultry meat cannot be significantly reduced with the current varieties and technologies. In horned cattle and sheep farming, on the other hand, fodder consumption can be further reduced through improved mass fodder management.

Despite the growing use of mixed fodder, the utilization of fodder mixing capacities in the agricultural farms examined was only 40 to 60 percent in 1979. This was due to the fact that the farms--because of the continuous supply of their own animal stock with mixed fodder and the low cost of self-prepared nutriment--endeavored to establish independent manufacturing capacities. The free capacity of the large farms would make it justifiable for the overburdened cereal industry manufacturing capacities, most of which are in need of reconstruction, to prepare primarily concentrates which the agricultural large farms could then use to make mixed fodders. As a result, the capacity utilization of farms would improve, transportation costs would be reduced, and the preparation of industrial fodders as a whole would also become more economical.

"Superfluous" Plow Land

In the interest of reducing the cost of drying, several large farms increased the cultivation ratio of corn varies requiring a shorter breeding season, and introduced the use of storage and forage technology for wet corn kernels. According to the researches of the Agricultural Science University of Keszthely, the drying energy costs for corn stored in this manner can be reduced by 350 to 400 forints per ton. (By so doing, one can save 50 kilograms of diesel fuel and 25 KwH of electricity). It has been calculated that with this method, 80,000 tons of diesel fuel and 30,000 to 40,000 KwH of electricity could be saved annually at the level of the national economy. With this method, the loss of fodder resulting from drying could also be avoided.

The widespread use of wet preservation, however, is hindered by not only various mechanization problems, but also financial problems as well. Since the corn that has been stored wet is a reserve that cannot be mobilized, it cannot be disposed of in case of need. This is why, in the interest of increasing their year end incomes, it is more advantageous for the farms to choose the fodder (and storage procedure that goes with it) which costs more to dry but can be sold any time on the market.

An important condition for the further reduction of feed grain consumption is to increase the level of rough and mixed fodder management in the case of ruminant animals. Close to one fifth of the total feed grain is used to feed horned cattle and sheep. In the period since the basic survey, the farms examined increased production of mass fodder as the main crop sown. In 1979, mass fodder was cultivated on 10.5 percent more arable land than in 1975.

By increasing the sowing area of silage corn and the crop yields, the farms examined were able to prepare in 1979 nearly 50 percent more ensilage than during the last year of the KNEB's basic survey.

The amount stored in silo space with a solid foundation and side walls rose two-and-half times and reached one-third of all ensilaged quantities (compared to 20 percent in 1975). Together with the increase in silage fodder preparation, the quantity of fodder rudimentarily stored (on the ground) rose by 80,000 tons. With this kind of storage, losses amount to 25 to 30 percent, which is the equivalent of approximately 100,000 tons of silage fodder. Thus primitive storage transforms into refuse the crop of 4,000 to 5,000 hectares of arable land, that is it ties down an area of this size in a superfluous manner.

The second major part of mass fodders is the 4.8 to 5.2 million tons of plough land and grassy hay, but 20 to 30 percent of the feed produced here is lost (for example, because of a lack of covered hay storage spaces).

Within plant cultivation, mass fodder culture plays a secondary role, at least as far as cropland designation and the supply of fertilizer and machinery are concerned. In more than two thirds of the farms no uniform direction for fodder management (production, storage, utilization) has been developed. A conflict of interests continues to exist between plant cultivation and animal breeding. In the majority of the farms, mass fodders are turned over to animal breeding only quantitatively. One can hardly speak in practice of the evaluation of mass fodder a-cording to quality, and of its being turned over accordingly to animal breeding at a price reflecting its utilization value.

The Fate of Byproducts

The situation is not much better inthe case of byproducts. Although in the farms that were controlled, the total estimated quantity of byproducts rose by 15 to 20 percent, and 20 to 25 percent more byproducts were used in 1979 than in 1975, only 16 percent of the corn stalks, which represent the biggest quantity of these byproducts, reached the animals.

The utilization of the byproducts to a larger extent is hindered by the fact that transport capacities must be provided to gather them at a time when the primary task is the harvesting of the main crop. The utilization of byproducts of sugar mills, breweries and distilleries suitable for forage has been solved since the basic survey.

The processing of meat and poultry industry byproducts into fodder is also under way. With the present technology, however, it is not possible to prepare meat meal of adequate quality.

The use of dairy industry byproducts has increased. The ratio of the quantities destroyed in the dairy industry does not even reach 4 percent.

On the basis of the findings of the examination, there is a need, among other things, to increase silage storage space, to popularize fodder storage without drying, to adjust financially the utilization of self-produced feed grain, to increase large farm mixed fodder manufacturing based on concentrate purchasing, to establish conditions for the settlement of accounts for mass fodders on the basis of quality, to work out the interest and financial conditions for expanding construction of facilities for the storage of mass fodders and energy saving wet corn storage, and to strengthen the order and organization of the farms' fodder management by means of increased controls.

2153
CSO: 2500

DEBT REPAYMENT SITUATION NOTED

Bonn DIE WELT in German 12 Jun 80 p 14

[Article by VWD: "Warsaw Wants To Pay Its Debts on Time"]

[Text] Poznan--The high level of Polish debts in the West is again one of the most important topics at this year's Poznan Trade Fair. Warsaw has been emphasizing time and again that Poland must and will meet its financial obligations on time. Its mountain of debts in the West has risen to approximately $19 billion (more than DM 33 billion). In 1980, obligations toward the FRG alone amounted to DM 3 billion. Still, Poland refuses to ask for a postponement or conversion of debts, but it is making a determined effort to preserve the role of a reliable debtor. Experts are estimating the total of Poland's financial obligations toward the West for 1980 at approximately $8 billion, an estimate which is slightly higher than an earlier figure of $7.6 billion.

Compared to these financial obligations, 1980 foreign-exchange revenues will be approximately $10.6 billion--$8.6 billion will be export income and $2 billion will be revenues in the service industry.

In view of these relations, people in responsible positions in Warsaw presented specific requests to several Western bank consortia and governments. Not long ago, France, for instance, furnished new credit facilities totaling $755 million, Austria provided credit in the amount of $250 million in anticipation of future deliveries as well as $300 million as a prepayment for future purchases of electricity. Originally, Poland wanted to borrow $1 billion from a U.S. bank consortium, but now--according to rumors among experts--it looks more like $500 million.

Large German banks that are doing business with Poland are willing to provide additional funds to Poland within the framework of a returning flow of payments, which must be according to the terms. Bank circles are given to understand, however, that Poland does not want short-term credits, because they would cause an increase in the burden for 1981, a year which is already heavily encumbered.

Something else could be heard in Poznan. The USSR granted to Poland "economic assistance" in the amount of $1 billion. At an earlier time, the understanding was, based on a wrong interpretation, that Poland would receive foreign-exchange credits in the same amount.

8991
CSO: 2300

IMPORT SAVINGS, EXPORT PRODUCTION OF KATOWICE STEELWORKS NOTED

Warsaw TRYBUNA LUDU in Polish 29 Jul 80 p 3

[Article by Jan Rutkowski: "Katowice Iron and Steel Works--Effectiveness Reserves"]

[Excerpts] Three and one-half years have passed since production was started at the Katowice Iron and Steel Works. During this time, the combine furnished 12 million tons of steel to the economy. From it, 8.5 million tons of various metallurgical products were manufactured and valued at 49 billion zlotys. This is a large amount, but the requirement of the economy for steel is constantly growing.

The consumption of steel calculated at per capita in Poland rose in the last decade from 357 to 640 kilograms. This increment is all the more understood when we realize, for example, that approximately 1,200 kilograms of steel are required to construct and equip one apartment and 400 kilograms of steel are required to manufacture one Fiat 126-p.

In the past 5-year period we had to purchase abroad 3.2 million tons of rolled products, expending for this purpose more than the amount of revenues obtained from the exports of coal. Mainly as a result of the Katowice Iron and Steel Works' production, it was possible to reduce the debit balance in the metallurgical products trade from approximately 2.7 billion foreign exchange zlotys in 1975 to 0.13 billion foreign exchange zlotys at the present time. This is the fundamental gauge of the significance of the [Katowice] iron and steel works for the country. Especially, since in the present 5-year period the deliveries of metallurgical products to the domestic customers rose by 1 million tons annually. This iron and steel works began to supply the kind of products we had not produced until now.

Following are several examples of the production:

--Waterproof piles G-1--we imported from abroad 30,000 tons annually; this year the requirements will be greater--40,000 tons, and will be fully met by the Katowice Iron and Steel Works' production;

--V-29 Profiles [Sections] were imported from abroad for the heavy linings of mines. This year, the iron and steel works will be able to supply 100,000 tons;

--S-49 and S-60 rails were also an import object--in the amount of 80,000 tons annually. The production of rails was launched last year. This year we will sell 177,000 tons of them to foreign countries.

The [Katowice] Iron and Steel Works is exporting more and with increasing profitability. In 1977 a total of 356 tons of semifinished products and not even a ton of finished products were exported. Last year--40,000 tons of semifinished products and 436,400 tons of finished products were exported.

The export plan for this year does not call for the sale of semifinished products at all; on the other hand, the sale of final finished rolled products in the amount of 823,000 tons is assumed. Obviously, this is a more advantageous and profitable export.

The Katowice Iron and Steel Works, which is producing and exporting more and more, and also more advantageously (the total value of the exports of the iron and steel works to the second payments area in the years 1979-80 will amount to 940 million zlotys and will balance the value of the purchase of equipment imported from that region for the entire first stage of construction), is not in a position to simultaneously exploit all its technological possibilities for lowering the costs of production.

CSO: 2600

BRIEFS

JOINT COMPANY WITH MAURITANIA--Council of State Decree No 192 of 18 June 1980 has approved the participation of the "ROMAGRIMEX" foreign trade enterprise, which is under the jurisdiction of the Ministry of Agriculture and the Food Industry, in the establishment, together with the "COMANATRA" Anonymous Company of the Islamic Republic of Mauritania, of the Romanian-Mauritanian joint fishing company "SIMAR," a stock company, with headquarters in the city of Nouakchott, in accordance with the documents for the establishment of a joint company--the contract of association and the statute of the company. The share of participation of the Romanian side in the social capital of the company will be 49 percent. [Text] [Bucharest BULETINUL OFICIAL in Romanian Part I No 51, 24 Jun 80 p 1]

RETAIL PRICE FOR DIESEL FIELD CARS--The President of the Socialist Republic of Romania decrees that the retail price for type A 0-244 field car, with diesel engine, is set at 110,000 lei. The price of 110,000 lei includes a 21,576 lei tax on the circulation of goods, a commercial rebate of 4,284 lei, the ADAS [State Insurance Administration] insurance fee and the warranty tax of 2,890 lei. The retail price stipulated in Article 1 covers delivery free of charge from warehouse to supplier, exclusive of packaging for transport. [Excerpts] [Bucharest BULETINUL OFICIAL in Romanian Part I No 51, 24 Jun 80 p 5]

CSO: 2700

STATUS, AID IN UNDERDEVELOPED AREAS DISCUSSED

Belgrade RAD in Serbo-Croatian No 30, 18 Jul 80 pp 14-15

[Article by Zoja Jovanov: "The Treasure of Our Tomorrow"]

[Text] A sizable amount of money is loaned to underdeveloped areas through the Federal Fund, and many organizations with high earnings would gladly "take over" the long repayment periods and low interest. For the collectives in which the resources of the fund originate on the basis of an assessment of 1.97 percent of the Yugoslav social product, they lend the money without becoming creditors. That is, the loan is repaid to the fund and then loaned out again to the underdeveloped. It is no secret--this institution is writing off unpaid claims more and more frequently....

Moreover, the resources of the fund represent about 20 percent of the capital surplus of the entire economy. In the first 4 years of the current medium-term period more than 53 billion dinars were pooled through the fund, but thanks to additional federal measures another 23 billion were furnished to the fund this year as an advance. The money is allotted on the basis of a criterion which has been in effect since 1971. Bosnia-Hercegovina gets 34 percent of the resources, Kosovo 30 percent, Macedonia 24 and Montenegro 12 percent. But before that distribution 0.2 percent of the total fund for the underdeveloped is set aside for development of Kosovo. Thus that province had the largest share in the resources of the fund over the past 4 years: 19.6 billion dinars and 8.5 billion from other federal sources.

There is quite a long list of the sources of money aid going to the underdeveloped regions. From the federal budget, for instance, supplemental funds are furnished to finance social services and other activities in the amount of 41.5 billion dinars. The underdeveloped also have a more favorable status than the advanced regions in obtaining foreign exchange from the common treasury. In addition, their share in the credits of the International Bank for Reconstruction and Development is 60 percent, and, moreover, these loans are made on favorable terms not granted to others.

To travel through Slovenia and Kosovo, to see Vojvodina and Montenegro, to talk with business executives and workers running machines, and then to make the fateful decision on which region is advanced and which is underdeveloped is by no means easy. The authors of this division have chosen an easier, but more reliable way: They have gathered data on overall economic and social life and in that way tried to devise criteria on level of development. They tried, but they were not successful.

In other words, the debates which have lasted many years concerning these criteria have not yet died out. Nevertheless, the decision on which region deserves the aid of the entire community and its development has been made. All those who in this medium-term period are on the list of the underdeveloped will also be honored as such over the next 5 years. The decision is rather a way out of the sometimes fierce debates which have lasted for years than the fairest solution. And it now seems that this is actually the only way it could have been, since any discussion of this topic would hold up the task of drafting the plan for Yugoslavia's development over the next 5 years. That is, ascertaining the level of development was the stumbling block in the drafting of that plan, and though it was passed over without a serious effort, the impression is that "peace in the house" was kept in that manner.

Harmony With Differences or Within a Framework of Equality

Though one knows even from a superficial glance which regions are economically underdeveloped and why there are many ways of changing this established pattern, everything depends on which criteria are used to measure the level of development, and however fair they may be, they cannot apply to all equally. That is, the roots of differences in development go back 4 decades, but all the measures taken since then have not been enough to diminish differences in economic development. Though the plans and tasks were very concrete, the agreed growth rate of the social product has never been achieved in the underdeveloped regions in any 5-year period. The economic gap has even widened.

Which gives rise to the question: Is harmony in development being created with differences or in a framework of equality? The figures state that it is the former, but all socioeconomic and political commitments state that we are aiming at the latter. Why, then, reality escapes the plans and agreements is not a question first asked yesterday. Indeed the answers to it are well known, but the solution of the problem lies above all in changing the way in which development aid is now offered to the underdeveloped regions, an aid that resembles the taking and giving of money.

Thus the label of being underdeveloped that goes regularly with the aid funds, these regions are artificially isolated from the economic flows in the advanced regions. The figures unquestionably indicate this. Regardless of whether the fault for this situation is borne by the government or the self-managers, it is up to associated labor to correct the errors made over 4 decades. All the republics and provinces have a duty under the constitution to break down the regional barriers of "their" market and development. Another reason for taking this obligation seriously is the instability of the economy, and it is a fact that the roots of this lie in the disproportionate structural and regional development of the sectors of the economy. That is, up to now those sectors accorded the status of priority in development in all documents have so far lagged in development. This disproportion in economic structure is the same as the disproportionate development of the republics and provinces.

This comparison was always convincing, but until recently, because of cheaper imported raw materials, there was little motivation to change anything in the structure of the economy. Even in the future it will no doubt be difficult to oppose the established habits of confining economic development within the limits of the republics and provinces, but there is no longer any way out. The underdeveloped regions represent our largest raw materials potential, and in the future we must count on them as the basis for Yugoslavia's long-range development. There are no longer any arguments that can be made to dispute this economic necessity for a new division of labor in our economy. Kosovo, Montenegro, Macedonia and Bosnia-Hercegovina are today referred to as the economic treasure of our tomorrow more than ever before.

The efforts made to date to bring these four underdeveloped federal units up to the economic power of the advanced have not borne fruit. Something must obviously change on the road to material equality of the republics and provinces, and this must be a change from the beginning--from determination of the level of economic development of sociopolitical communities.

[Box, lower left] Short of All Expectations

> Counting on the economic potential of the regions which are economically behind in their development, the planners predicted that in the three republics bearing that status the per capita social product in this 5-year period would increase at a rate of 20-25 percent above the Yugoslav average, and in Kosovo it would be 60 percent higher. The plan was transformed into specific work programs, but its fulfillment fell short of all expectations. The average annual growth rate from 1976 to 1979 in Bosnia-Hercegovina was 7.1 percent, which is also the Yugoslav average. This average was surpassed in Macedonia, where the growth rate of the social product was 7.8 percent. In Kosovo the value of this indicator was held at 4.9 percent, and in Montenegro a symbolic 1.7 percent. The reason for the latter was the earthquake on the Montenegrin coast. Because of that catastrophe Montenegro will most probably reach the level of the social product which it had before the earthquake only in 1985. Allocation of funds to rebuild the region destroyed has already become a legal obligation on the part of the entire work force, but it will mitigate the

misfortune in development of the Montenegrin economy only to a certain extent.

Much Ado About Nothing

Five years of debate on who is a member and who is not a member of the "club" of underdeveloped are now being called a short period of time. To be sure, debate of the draft of the decision on objectifying criteria and indicators for determination of the level of economic development of the republics and provinces has come to an end in federal social councils. However, the councils have already requested that this text, which they had passed, be withdrawn from proceedings in the assembly. They concluded that it was better to perfect the text, though the job might take years, than to offer it in an unfinished state to the delegates of the SFRY Assembly for adoption....

Is that the real reason for dragging out a job which ought to have been done long ago? Much ado about nothing, or was the decision rightly made to stop halfway--for the umpteenth time? It seems that few people question the validity of the criteria, but in all republics and provinces they are doubtful about their applicability. That is, according to the criteria of the draft order, some regions would lose and others acquire the status of underdeveloped, and the hastily made calculation of this create a general dissatisfaction. It even went so far that it was concluded that it was concluded that it would be better for certain regions to belong to the "club" of underdeveloped, while those who already have that status said that they would be deprived of it artificially. The truth lies somewhere in between, that is, under the pressure of "arguments" like this, the authors of the text withdrew.

The Federal Bureau for Social and Economic Planning has proposed three principal criteria: the per capita social product of the entire economy, the level of employment in the socialized sector per 1,000 inhabitants and the per capita purchase value of active fixed capital. An alternative was also given for the latter two criteria, which can be computed relative to the labor supply. These criteria of level of development are a worthwhile part of society's endeavor to return in development to the economic logic of the conduct of business activity. But, as we see, they will be left for a better tomorrow of our economy.

Along with these three, the bureau also proposes an auxiliary criterion: the ability of the socialized sector of the economy to accomplish expanded reproduction, in per capita terms, of course. Had everything gone the way it is set forth in the constitution in our socioeconomic relations, above all in the workers' taking over control of expanded reproduction, this additional criterion would perhaps be the only right one. But so long as lingering on the border of profit and loss is regarded as success, the accumulative and reproductive capacity of each organization will remain at the tail end of the criteria concerning its success in the conduct of its business.

On the recommendation of the same institution, regions which with respect to two of the three criteria we have mentioned are below the minimum values would be regarded as underdeveloped. One condition is that the social product be one of the criteria. Actually, up to now it has been the only criterion of the level of development of regions, and it will remain for the foreseeable future.

The minimum values have not been established, and though the very first proposal gave rise to polemics, the real "tilting" is yet to come. It is a question of absolutely opposite opinions from the advanced regions and underdeveloped regions. Everyone, of course, is pulling for his own side, and the solution which has been announced, one which attempts to go down the middle, will certainly not please either side.

The advanced regions want the minimum value to be lower than the average in the Yugoslav economy. The reason is clear: then everyone except Kosovo would acquire their status, and that means that far less money would be set aside for aid to the underdeveloped....

Regions lacking in their development, however, want the minimum value of these criteria to be shifted as close as possible to the average in the Yugoslav economy. That is, this is one guarantee that all those who have up to now had the status of underdeveloped will also have it over the coming 5 years.

If we are relying on economic development, and we are, then it must be said that the economy does not have the money to meet these extreme demands. In any case, only those from Vojvodina have been spared the headache about their status. At whatever value the line is drawn between the advanced and the underdeveloped, backwardness in development cannot be attributed to a single opstina in Vojvodina. And even if this inflexible line were drawn at 30 percent below the Yugoslav level, a third of the population would belong to the regions of the underdeveloped, and that would be true in all federal units except Vojvodina.

But development is taking place on the basis of the old measurements. The only change is that Kosovo, though it is receiving the largest material assistance, will also acquire a special status: that of the economically most backward region of the country. What this will signify will be decided in a separate social compact.

The "big housecleaning" in the policy governing aid to the underdeveloped has also extended to the procedure of the Federal Fund for Stimulating the Faster Development of the Underdeveloped Republics and the Province of Kosovo. Though economic relations in our economy are a topic more for criticism than praise, it is still thought that the level attained is one where the procedure of the fund has been superseded. Both sides are dissatisfied--both those investing money in this credit institution and those who receive money through it.

The Right of Rendering Accounts

The former are seeking ever more outspokenly the right to have accounts rendered to them on the use of the resources which they allocate to the fund. To be sure, the question of responsibility for any use of this public money in an unwise way or for other than the stated purpose has been raised for 15 years now, ever since the fund was established. The answers have also been given for 15 years, but the right to call the fund to account is apparently beginning only now. That is, the workers do not decide directly on the resources of the fund, and so long as that is the case, they shall be regarded as an alienated portion of the workers' income, or on the other hand, money presented as a gift. In that situation all the customary criteria concerning the disposition of the resources of society usually loosen up. It is not the rule, but many investments referred to as economic investments have melted away in the form of luxurious offices in administrative buildings....

There are not many things on which opinions differ so much as the function of the fund. Nevertheless, we can say of two of them that they are exclusive: one is that differences in development of the regions must be diminished through this institution, and the other is that the fund has to be transformed to conform to self-management. How this latter is to be done--is a topic on which discussion has only begun, but it is beyond dispute that more resources than up to now must be obtained through mandatory pooling of capital through the fund. It has even been proposed that the ratio between these funds and funds gathered automatically by law be half and half. In any case, the pooling of capital through the fund has so far been on a token scale, though it was envisaged that 20 percent be invested in the fund as a joint investment. Over the last 4 years, however, only three self-management accords have been signed concerning joint construction of projects, and the funds for that purpose, pooled through the fund, amounted to 240 million dinars. Only 0.3 percent, then, of the amount envisaged.

There are also many advocates of the idea that compulsory pooling by law be abandoned, and the supporting argument is that free choice would guarantee a firmer connection between collectives, which would see this in their common interest. This belief prevails among business executives from the advanced regions and it is being subjected to serious criticism by those from the underdeveloped regions. Nevertheless, the latter state that money is only a part of the aid, not even the most important part, while learning to handle it economically is the important thing. This is what they say even in Kosovo, which can no longer be referred to as a region of untaught workers. That province has 20,000 specialists with university degrees, and there are no jobs for all of them.

There is no question that all the problems of the underdeveloped regions cannot be resolved through the fund even though this institution is the most reliable source of aid. The more harmonious long-range development of the republics and provinces has a greater chance through the pooling of labor and capital between the advanced and the underdeveloped. After all, pooling implies more economical division of labor, specialization in production, exchange of technology and knowledge, and everything else that stands as a condition for taking over a market, but at the Yugoslav level. But in this case the blame for a widening of the regional economic gap could not be put on any sort of objective difficulties.

We should, of course, avoid a list of wishes in planning investment projects, but it would be good to draw up some list of projects which would be necessary to the advanced regions and would prove to be the most optimum in those other regions as well. As a start....

[Box, upper right] On Their Own

> There is no question that the workers in the underdeveloped regions are making efforts to improve both their own position and the position of their organization. The results of the conduct of economic activity, however, show that the attitude toward work and resources must improve. Over the last 4 years, productivity has increased at an annual rate of 2 percent, 0.6 percent lower than the Yugoslav average. Though higher productivity was counted on as measure No 1 in the more stable conduct of business, it was not achieved. To be sure, in all three underdeveloped republics it was 0.1-0.3 percent higher than the national average, but only half as high as the planned growth rate of productivity. What is more, productivity in Kosovo is 0.3 percent lower than the average achieved in the Yugoslav economy.
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> The supply of trained personnel in the underdeveloped regions has, however, become stronger, but it is inadequate. The number of new jobs opened is half what it is in the advanced regions. And like everything else, the growth rate of employment was supposed to exceed both the Yugoslav average and the average in the advanced regions. It is therefore no surprise, though it is a matter of concern, that the loss per worker in the economy of Macedonia and Bosnia-Hercegovina is close to the Yugoslav average. But it is strange that in Kosovo last year it was threefold greater than that and amounted to 12,076 dinars. The "average" loss per worker in Montenegro was 4,500 dinars greater, but we all know why that was so.
>
> In any case, the volume of industrial output in the underdeveloped regions has been higher than the Yugoslav average over the last 4 years, while that of agricultural output has been lower. All in all, it is a poor achievement, one which does not promise better days. Especially since imports in these regions are almost half again as large as

exports, so that reliance on their own energies will continue in future to be a smaller portion of the efforts in development.

[Box, bottom right] The Largest Construction Site

The regions whose economies are underdeveloped are at the same time the largest construction sites in our country. Nevertheless, the average annual growth rate of investments has been 8 percent below the Yugoslav average over the last 4 years. Investments to build major projects were supposed to have been 168 billion dinars, but because of extensions of completion dates and rising costs, the cost of the work was 50 billion greater.

As for the pattern of investment, investments to develop the energy and raw materials industries represent two-thirds, which indicates that the structure of the economy is changing in the direction long anticipated.

The share of the fund in total economic investments in the underdeveloped regions is 24 percent on the average. In Kosovo these funds are the principal source for financing development, since their share is 62 percent of total investments in the province. Otherwise most of the money for development is obtained from the banks, through credit. The underdeveloped have put up as their own share only 15.8 percent of the development dinar, 7.2 percent less than put up by the economy of the advanced regions.

Given all these efforts, both their own and those of the entire community, the economy in the underdeveloped regions is overindebted. Last year payments against outstanding capital investment credit relative to the funds for reproduction reached 104.9 percent in Kosovo, 83.9 percent in Macedonia, and nearly 60 percent in Macedonia and Bosnia-Hercegovina. At the level of Yugoslavia as a whole, though, this indicator has a value of 53.4 percent. The entire community, then, will have to furnish still more money for development.

7045
CSO: 2800

OIL DRILLING, GAS, OIL PRODUCTION, 1979

Zagreb NAFTA in Serbo-Croatian No 6, Jun 80 pp 279-287

[Article by Ifet Ibrahimpasic, graduate mining engineer, doctor of engineering science, INA-Naftaplin; Nikola Cizmic, graduate mining engineer, INA-Naftaplin; Ljubica Milovanovic, graduate economist, Sector for Economics and Organization, Naftagas; and Damir Rajkovic, associate professor of the School of Mining, Geology and Petroleum, Zagreb]

[Excerpts] Results are given on petroleum and gas drilling and production by INA-Naftaplin and Naftagas in 1979. The essential characteristic of this drilling is the considerable reduction of exploratory drilling because of stronger orientation toward production drilling. In Yugoslavia in 1979 drilling work totaled 310,640 meters (as against 307,638 meters in 1978), and 4,145 x 10^3 tons of petroleum (as against 4,076 x 10^3 tons in 1978) and 1.855 billion cubic meters of gas (as against 1.93 billion cubic meters in the previous year) were produced.

1. Activity of INA-Naftaplin

Drilling in 1979 was done with 15 drilling rigs and the platform PANON.

Drilling activity was carried on in the region of eastern Slavonia, the valleys of the Drava and Sava, the Adriatic coastal region and offshore. It involved 112 localities.

Performance in fulfilling the plan for drilling deep wells in 1979 was related to certain difficulties which arise in drilling when insufficient knowledge of the arrangement of rock strata in exploration areas must be improved. The reorientation toward larger development drilling activity in 1979 by comparison with the plan (103,800 meters) resulted from the necessary reduction of the total activity of exploratory drilling (Pannonia, the Dinarids and the Adriatic seabed), whose plan for 1979 was 85,900 meters.

Comparing the overall drilling plan for 1979 (189,700 meters) with total drilling done in that period (189,882.7 meters), its 100-percent fulfillment is obvious. However, when drilling for 1979 (189,882.7 meters) is compared to drilling done in 1978 (197,731 meters), we find a drop of 7,843.3 meters.

Table 1. Drilling Results of INA-Naftaplin

Description	1978	1979
1. Total drilling in meters:	197,731	189,882.7
a) Exploratory drilling for petroleum and gas	102,438	57,703.2
b) Petroleum and gas development drilling	95,293	132,179.5
2. Number of wells drilled:	115	112
a) Petroleum and gas exploration	51	27
b) Petroleum and gas development	64	85
3. Drilling success		
a) Total wells drilled	115	112
b) Positive for petroleum and gas	36	50
c) Dry (negative) wells	23	30
d) Wells being tested and also new projects	56	32
4. Number of drilling rigs in operation	15.15	15.41
5. Meters drilled per rig	13,051	12,322

Average well depth in 1979 was 1,824 meters for production drilling and 3,147 meters for exploratory drilling, which is 100 meters more than average exploratory well depth in 1978, which was 3,047 meters. However, this increase in average depth of exploratory wells is not the principal reason for the drop in the output of total drilling.

Table 2. Petroleum and Gas Production by INA-Naftaplin in 1979

Description	Actual Performance in 1978	Actual Performance in 1979
Petroleum, in tons	2,931,166	2,971,700
Gas, in 1,000 cubic meters (standard temperature and pressure)		
a) Natural gas	635,037	591,937
b) Casinghead gas	299,257	213,930
Total (a + b)	934,294	805,867
c) Liquefied gas, in tons	53,844	48,402

1.3. Activity of INA-Naftaplin in Exploring and Developing Fields, in Production and in Other Operations

Exploratory Work in 1980. The work plan for 1980 is related primarily with delivering explored reservoirs of hydrocarbons for development. Exploration of promising new reservoirs derived from the regional study pertains to the Drava, Mura and Sava depressions. The activity of INA-Naftaplin also extends to further explorations of hydrocarbon deposits in the Pannonian Basin, offshore in the Adriatic, the region of the Dinarids, the Fold zone [Pregibna zona] and abroad.

Pannonian Basin

Of great interest in this region are the operations to complete exploration in the sense of full definition of the petroleum and gas reservoirs discovered, of turning them over for development and of undertaking the production process. Preparation of the study and the possibility of identifying promising new locations is dependent upon the gathering and processing of geological and physical data. Thus speeding up operations at a sizable number of locations (Klokocevci, Crnac, Leticani, Cvetkovec and Zebanec) will contribute to their delivery for further development.

A geological-economic study for new well sites in the Drava and Sava depressions will be prepared for about 12 reservoir locations which have been identified.

The study of the Slavonian-Srem Depression will have to be completed, and the most promising areas for discovery of hydrocarbon reservoirs identified.

INA-Naftaplin is working to complete the studies already begun and new geological studies by enlisting the cooperation of outside contractors: Industroprojekt, the School of Natural Sciences and Mathematics and the Geology Bureau. More intensive drilling in the Pannonian Basin, which is planned at 64,350 meters, is envisaged in 1980. The plan calls for 15 exploratory wells to be drilled, and the drilling of 9 wells is envisaged at localities of petroleum and gas reservoirs which have been discovered.

Average well depth will be about 3,560 meters.

Exploratory drilling in the Pannonian Basin in 1980 is very ambitious, not in terms of the planning target, but because of the problematical natural conditions of arrangement of the relevant rock strata. We should emphasize that pT conditions [pressure-temperature] are an essential component in successful performance of the anticipated operations.

High reservoir temperatures are related to urgently necessary operations like the following: geophysical measurements in wells, the testing of wells, grouting casing columns, maintaining drilling mud, perforation of casings, treatment of reservoir rock, and so on. Moreover, in order to overcome the high pressures it will be necessary to use under conditions of high temperatures the most refined technical equipment, which has not yet attained the level of universal application in the world.

As for geophysical work, plans call for shooting about 1,100 km in a network of detailed and regional seismic profiles, the data to be processed in the INA computer center. Seismic rates are to be measured in eight wells. A detailed gravimetric and magnetometric survey will be done in the region of Bilo-Gora.

Offshore Drilling in the Adriatic

In addition to the gas reservoirs discovered previously and referred to as Locality No 7, a gas reservoir has been found in Mesozoic carbonate rock and named Locality No 18. This new discovery furnishes hope of a more extensive activity of geological exploration of INA-Naftaplin for commercial purposes in the Adriatic. In 1980 geophysical work will be stepped up. Preparation of the complete study of these gas deposits urgently needs preparation of a geological study, along with detailed interpretation of geophysical measurements, tests of the production indicators of the gas reservoir rocks, establishment of reservoir exploitability, etc. That study will contribute to expanding the exploration field in that part of the Adriatic seabed.

As for geological work on the Adriatic seabed, work is continuing on the topic study concerning paleogeographic relations of the exploration fields.

As for geophysical work planned for 1980, about 2,500 km of seismic profiles are to be shot. The necessary magnetometric measurements and measurement of seismic rates in exploratory wells will be done. Airborne thermal prospecting of certain coastal regions and the surface of the sea will continue.

In 1980 exploratory drilling totaling about 15,500 meters is planned. Localities 7, 18 and 20, where plans call for drilling 8 wells, are of interest to this drilling.

The discovery of carbonate rocks as gas reservoir rocks offers more favorable conditions of exploitation than those fields involving a sand collector. Qualitative lithostratigraphic facts concerning further development of operations will be ascertained by taking core samples and by analyzing their physical characteristics in the laboratory (permeability, saturation with fluids, i.e., with gas and water, etc.).

The anticipated exploration (testing) of wells will establish the production indicators of the reservoirs and define the petroleum-geological characteristics of rock strata making up these interesting and newly discovered deposits.

Dinarids

In 1980 the Outer Dinarids are preoccupying INA-Naftaplin because of their interest for further prospecting. They especially gained in significance with the drilling of well Brac-1B, which, representing a specific phenomenon in the activity in this region to date, made it possible to obtain certain knowledge from which one can define more accurately the degree of promise of hydrocarbon pools. The tectonic complexity of the Dinarid complex, migrational processes, and stratigraphic, lithological and tectonic hydrocarbon traps, the genesis of the occurrence of hydrogen sulfide, superpressures and paleopressures, etc., constitute a set of essential and interconnected factors for the future comprehensive study of exploration of exploitable hydrocarbon reservoirs in this exploration field.

Geological work, geophysical measurements and deep exploratory drilling will have to be done. Preparation of the new location involves preparing designs of very deep wells, which will require technical equipment which can be used for drilling through rock strata in which hydrogen sulfide has accumulated at very high pressures. The deep exploratory wells Poljica-1 and Sipan-1, in the region of the Outer Dinarids, will amount to about 5,500 meters in 1980 alone.

When these wells are finished, it will be possible to evaluate the regional petroleum-geological relations of this part of the Dinarid area, where the Mesozoic rock strata are very interesting. Testing the wells by the so-called DST [(?) digital seismic test] procedure will make it possible to establish conditions for the flow of fluids from the pertinent rock into the well bores.

Fold Zone

In this area INA-Naftaplin's activity is oriented in 1980 toward geological and geophysical work. The Geology Bureau in Ljubljana will complete the study entitled "Mesozoic Clastites in Slovenia." Another study is also planned: Geological-Tectonic Relations and Petroleum-Geological Characteristics and the Petroleum- and Gas-Bearing Promise of the Fold Zone.

As for geophysical work, seismic measurements will be done on a transverse regional profile along the valley of the Glina River, from the Paleozoic-Mesozoic rock complex to the Kupa River. This will contribute to knowledge of deep structural relations of the Glina Basin.

1.4. INA-Naftaplin's Activity Abroad

Operations in those countries where they are already being conducted (Iraq and elsewhere) will continue in 1980. In addition, activity is planned in the following countries:

Italy

Research processing of data obtained in drilling the deep well AMANDA-1-bis is in the final stage. There is a possibility of continuing exploration work with the platform PANON, which is the property of INA-Naftaplin.

Vietnam

Operations are being done with 10-percent share of INA-Naftaplin, under an arrangement with DEMINEX and AGIP. An extensive drilling program is anticipated here. The pace of operations in 1980 will depend on results achieved last year.

Other Countries

There are possibilities that INA-Naftaplin might become involved in operations in Algeria, Libya, Indonesia, etc. This will depend on financial possibilities and economic justifiability of investing capital in the individual projects.

1.4.1. Work on a Contract Basis

After the operations performed in Syria, the same drilling installation will be used for drilling in Iraq. In view of the success of INA-Naftaplin's activity in this country, an expansion is expected not only for drilling work, but also in the repairing of wells and specialized mining work. Business talks are being conducted concerning the possibility of rendering engineering and technological services in Libya.

2. Exploration, Drilling and Production of Petroleum and Gas by the Work Organization Naftagas in 1979

2.1. Geological and Geophysical Work

Exploratory work in 1979 was done in Vojvodina and in portions of Kosovo and Serbia proper.

Regional geological explorations were conducted exclusively in portions of Kosovo and Serbia proper: specifically in the region of the Morava Valley, between the Mesozoic of eastern Serbia and the Sumadija Slope [Greda].

A study was prepared on technical feasibility of using secondary methods for petroleum fields in Vojvodina, and this is the initial phase in orienting further activity toward use of secondary methods in order to increase petroleum recovery.

Reflection shooting with multiple overlapping was done in areas of Vojvodina and Serbia proper. The seismic tests were mainly detailed in nature, their task being to discover new localities or to define existing ones.

2.2. Operations Abroad

Total investments in 1979 in foreign operations amounted to 62,705,000 dinars.

2.2.1. Gabon

On the basis of a contract concluded with the government of the Republic of Gabon in 1977, Naftagas undertook the obligation to carry out exploration in coastal waters together with Naftaplin and three other firms from Germany.

During 1979 geophysical prospecting continued and drilling of the well CM-AL began on 22 December 1978, and was finished on 18 June 1979 at a depth of 4,103 meters. Occurrences of hydrocarbons were recorded during the drilling, but on the basis of an interpretation of EK [(?) electrical conductance] diagrams, testing and petroleum-geological examination of a broader area, it was concluded that the petroleum and gas occurrences do not have economic significance. During 1979 a supplemental program of seismic prospecting was drawn up.

On the basis of the convention which has been concluded, the exploration period has been divided into two parts, each lasting 2 years. An audit was run on financial and bookkeeping documentation for the operations in Gabon. During 1980 a decision is to be made on whether to enter the second phase of exploration, which would last 2 years. This decision will be made after the seismic survey data are processed by the business board of the partner.

2.2.2. Tunisia

On 2 June 1979 ETAP, the Tunisian national petroleum company, consented to Naftagas' joining the consortium which is jointly conducting petroleum explorations in Tunisia, and approval of the contract has been obtained from the Ministry of Energy and Industry of the Tunisian Government.

The first exploratory well Neapolis-1 on the offshore concession ENFICA has been drilled with a final depth of 3,021 meters. The well was cased with a liner-column whose diameter is 7 inches and depth 2,753 meters. Perforation and testing was done at the intervals 2,703-2,712 and 2,716-2,728 meters, yielding gas, petroleum and saltwater. The program for further operations calls for inserting a 5-inch liner-column and testing the approximate intervals 2,950-2,975 meters, in which hydrocarbon occurrences were recorded during drilling. Aside from drilling, supplemental seismic work was also done over 155 km, and the processing of profiles previously shot was begun.

2.2.3. Angola

In early 1979 Sonangol, the Angola national petroleum company, announced an auction for allocation of exploration rights to 13 tracts in the offshore zone.

An agreement has been reached with Naftaplin on joint involvement in exploration for petroleum in Angola, an application to that effect has been filed, and a program has been offered for our participation in the exploration.

2.2.4. North Korea

In 1979 Naftagas and Naftaplin concluded a contract with the national company for conduct of explorations for petroleum and gas, and commencement is anticipated during 1980.

2.2.5. China

A contract on participation in geophysical explorations has been concluded with British Petroleum of London and another 28 of the best-known world companies, affording the right of use of the complete documentation.

Table 3. Results of Drilling by Naftagas

No	Description	Performance 1978	Performance 1979
1	Total drilling in meters:	109,907	120,757
	a) Exploratory drilling for petroleum and gas	62,548	56,087
	b) Exploratory drilling for geothermal water	5,517	2,537
	c) Development and production drilling for petroleum and gas	41,842	62,133
2	Number of wells drilled:	64	64
	a) Exploratory wells for petroleum and gas	32	24
	b) Exploration for geothermal water	7	4
	c) Development and production wells for petroleum and gas	25	36
3	Drilling success:		
	a) Positive for petroleum and gas	30	41
	b) Positive for water	5	2
	c) Negative	19	10
	d) Being tested for petroleum and gas	10	11
	e) Being tested for water	--	--
4	Number of rigs in operation (for petroleum and gas)	8.5	9
5	Meters drilled per rig (for petroleum and gas)	12,136	13,136

3. Drilling Results in Yugoslavia in 1979

An essential characteristic of the drilling done in 1979 is the considerable reduction of exploratory drilling. The volume of that drilling in Yugoslavia in 1979 was all of 32 percent lower than in 1978. This is the consequence of the stronger orientation toward production drilling, for which the total increase was 42 percent over the previous year, and this inevitably brought about reduced activity in total exploratory drilling. Moreover, the average depth of wells, especially of exploratory wells, has been increasing steadily and is giving rise to a number of technical difficulties because of the more complicated natural conditions in the deeper rock strata, which is also tending to reduce the output of deep drilling.

Table 4. Results of Drilling in Yugoslavia in 1979

Drilling Performance	INA-Naftaplin 1978	INA-Naftaplin 1979	Index 79/78	Naftagas 1978	Naftagas 1979	Index 79/78
1. Total drilling done in meters	197,731	189,883	96	109,907	120,757	110
a) Exploratory drilling	102,438	57,703	56	68,065	58,624	86
b) Production drilling	95,293	132,180	139	41,842	62,133	148
2. Number of wells drilled	115	112	97	64	64	100
a) Exploratory	51	27	53	39	28	72
b) Production	64	85	133	25	36	144
3. Number of rigs in operation	15.15	15.41	102	8.5	9	106
4. Number of meters drilled per rig	13,051	12,322	94	12,934	13,417	104

Drilling Performance	Total 1978	Total 1979	Index 79/78
1. Total drilling done in meters	307,638	310,640	101
a) Exploratory drilling	170,503	116,327	68
b) Production drilling	137,135	194,313	142
2. Number of wells drilled	179	176	98
a) Exploratory	90	55	61
b) Production	89	121	136
3. Number of rigs in operation	23.65	24.41	103
4. Number of meters drilled per rig	13,009	12,726	98

4. Yugoslav Petroleum and Gas Production

The figures on production of petroleum and gas in Yugoslavia can be seen in Table 5.

Trends in petroleum and gas production are almost unchanged from the previous year. Total petroleum production in 1971 was 4,145,000 tons of petroleum, which is a 2-percent increase over the previous year. This increase was achieved through better regulation of production conditions, better utilization of the available petroleum drilling bit time, and use of certain stimulative techniques to increase the yield of wells. Nor should we forget that this production had to offset the inevitable depletion at existing petroleum fields.

The drop in production of natural gas by INA-Naftaplin (down 14 percent from 1978) brought about an overall drop in production, which to some extent was offset by the production of Naftagas, which was 5 percent greater in 1979 than in 1978. The overall drop in production of natural gas was 4 percent in 1979, which is a consequence of the lack of preparedness of the transportation system at a time when natural gas imported from the USSR appeared on the market along with domestic production.

Table 5. Petroleum and Gas Production in Yugoslavia

Petroleum Production, in 10^3 tons	1978	1979	Index 1979/78
INA-Naftaplin	2,931	2,972	101
Naftagas	1,140	1,168	102
INA-Nafta, Lendava	5	5	100
Total	4,076	4,145	102
Natural Gas Production, in millions of m^3			
INA-Naftaplin	934	806	86
Naftagas	996	1,049	105
INA-Nafta, Lendava	--	--	--
Total	1,930	1,855	96

7045
CSO: 2800

YUGOSLAVIA

OIL REFINING, REFINERY OPERATING CONDITIONS, 1979-1980

Zagreb NAFTA in Serbo-Croatian No 6, Jun 80 pp 288-292

[Article by Vilim Boranic, graduate chemical engineer: "Petroleum Refining in 1979 and Operating Conditions of the Refineries in 1980"]

[Excerpts] I

In 1979 15.8 million tons of petroleum were refined, which is 11.3 percent more than in the previous year, when 14.2 million tons were refined. Consequently, 1.6 million tons more were refined in 1979 than in 1978.

The relations between domestic and imported petroleum in the refining figures over the last 2 years are shown in Table 1. As we see from the table, the amount of domestic petroleum refined increased from 3,983,000 tons in 1978 to 4,081,000 tons in 1979, or 198,000 tons, which is 2.5 percent. This increase was 115,000 tons in 1978 and 59,000 tons in 1977.

Table 1. Petroleum Refining in Yugoslavia

	Domestic Petroleum		Imported Petroleum		Total	
Year	10^3 t	%	10^3 t	%	10^3 t	%
1978	3,983	28.0	10,245	72.0	14,228	100.0
1979	4,081	25.8	11,760	74.2	15,841	100.0
Index	102.5	--	114.8	--	111.3	--

At the same time, 11,760,000 tons of imported petroleum were refined in 1979, as against 10,245,000 tons in the previous year, an increase of 1,515,000 tons, or 14.8 percent. In 1979 this growth was 278,000 tons.

The share of domestic petroleum in total refining dropped from 28.0 percent in 1978 to 25.8 percent in 1979, while the share of imported petroleum increased from 72.0 percent to 74.2 percent.

Domestic petroleum was refined by those refineries favorably located with respect to the petroleum fields, while imported petroleum was distributed according to the agreement among the refineries.

The refineries as a whole had larger capacities for primary refining--21.4 million tons per year in 1978 and 25.5 million in 1979, since Naftagas' refinery in Pancevo increased its capacity to 5.5 million tons per year even in late 1978. In view of the abrupt increase in primary capacity, this capacity was utilized at a level of only 62.1 percent, since the amounts of petroleum refined, even though they were up 11.3 percent, did not keep pace with that growth.

In other words, the refineries were striving to refine all the available domestic petroleum, and the country's needs for petroleum products regulated the amount of petroleum imported. But difficulties in timely importation of petroleum which occurred for financial reasons and because of late arrival at refineries were a limiting factor. Moreover, since it was not always possible to adjust refinery yields to the seasonal needs of the market for finished products, especially its needs for light and heavy liquid fuels, finished petroleum products had to be imported from time to time, which was interventionary in nature. Much the same was the case with exports of surpluses of finished products.

Table 2 shows the production of the principal products, which, as in the past, depended on the peculiarities of petroleum refined, availability of installations for refining and finishing, and on the demand of the market, whose composition varied considerably in the winter and summer months. That table indicates separately the production for the market and internal consumption of the refineries and the loss in processing.

Table 2. Yields of Petroleum Refining in Yugoslavia

Product	1978*		1979**	
	10^3 t	%	10^3 t	%
Motor gasoline	2,301	15.9	2,399	15.1
Jet fuel and kerosene	299	2.1	341	2.2
Diesel fuel, household heating oil and extra-light heating oil	4,268	29.4	4,740	29.9
Furnace oil	4,638	32.0	5,045	31.8
Asphalt	635	4.4	740	4.7
Other products	1,213	8.3	1,641	10.4
Total for the market	13,354	92.1	14,906	94.1
Internal consumption of the refineries	865	6.0	762	4.8
Processing losses	281	1.9	173	1.1
Petroleum refined and additives	14,500	100.0	15,841	100.0

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* The figures for 1978 were given in NAFTA, No 6, 1979, Table 2 on p 261.

** Preliminary figures.

We might conclude from the preliminary figures that in 1979 the refineries considerably reduced their internal consumption and processing loss. That is, although petroleum refining in 1979 rose 11.3 percent, the internal consumption of the refineries was 13.5 percent lower than in 1978, i.e., in 1979 it amounted to 762,000 tons, as against 865,000 tons in 1978. There was a similar reduction in the processing loss; in 1978 it was 281,000 tons, and in 1979 only 173,000 tons, or all of 64.4 percent less. That is why the share of production for the market was 94.1 percent in 1979, as against 92.1 percent in 1978, and the quantitative growth was 11.6 percent.

We should also mention that the yields of individual products did not undergo essential changes between 1978 and 1979, except within the group of so-called "other" products.

The output of motor gasoline was 2,399,000 tons in 1979, as against 2,301,000 tons in 1978, or an increase of 98,000 tons, which is 4.3 percent. Its share of the petroleum refined was 15.1 percent in 1979 as against 15.9 percent in 1978. The lower growth rate of the production of motor gasoline is the consequence of increased production of primary gasoline, whose production in 1979 was 848,000 tons, as against 547,000 tons in the previous year.

Production of jet fuel and kerosene increased 42,000 tons in 1979; that is, in 1979 output was 341,000 tons, as against 299,000 tons in the previous year, but the share in the petroleum refined remained almost the same--2.2 percent, as against 2.1 percent.

The group of products of so-called intermediate distillates, i.e., diesel fuel, household heating oil and extra-light heating oil, were produced in a volume almost 500,000 tons larger in 1979. That is, the output of these products in 1978 was 4,268,000 tons, while in 1979 it was 4,740,000 tons, or an increase of 11.1 percent. Their share in the petroleum refined was 31.8 percent in 1979 as against 32.0 percent in 1978. Production was adjusted to the consumer demand.

The production of residual furnace oil increased--aside from internal consumption, which was considerably less in 1979 than in 1978--by about 400,000 tons, i.e., from 4,638,000 tons in 1978 to 5,045,000 tons in 1979, or 8.8 percent. This percentage of increase, then, was the smallest of all the products. The share in petroleum refined dropped off slightly: from 32.0 percent in 1978 to 31.8 percent in 1979.

Asphalt production increased from 635,000 tons in 1978 to 740,000 tons in 1979, or an increase of 105,000 tons, which is 16.5 percent. Its share in the petroleum refined increased from 4.4 percent to 4.7 percent.

A sizable growth of production was achieved in the grouping of so-called "other" products, which are made up of primary and special gasoline, white spirits, lubricant oils and greases, paraffin, aromatics and petroleum coke. Production of these products totaled 1,541,000 tons in 1979, as against 1,213,000 tons in the previous year. Production increased, that is, 35.3 percent, which is the largest increase for any product and amounted to

428,000 tons. That is why the share in the petroleum refined increased from 8.3 percent to 10.4 percent. The increase mostly concerned primary gasoline, whose production increased about 300,000 tons.

The relationships shown in Table 3 become evident if we examine the production of the four principal product groups, which are as follows:

a) motor and primary gasoline,

b) intermediate distillates, i.e., jet fuel, kerosene, diesel fuel, household heating oil and extra-light heating oil,

c) residual products, i.e., furnace oil (together with internal consumption) and asphalt,

d) all other products and processing loss.

Table 3. Proportions of Principal Products of Petroleum Refining

	1978		1979		
Product Group	10^3 t	%	10^3 t	%	Index
Motor gasoline and primary gasoline	2,848	20.0	3,247	20.5	114.0
Intermediate distillates	4,567	31.5	5,081	32.1	111.3
Residual products	6,138	42.4	6,547	41.3	106.7
Other products (and the loss)	947	6.1	966	6.1	102.1
Petroleum refined	14,500	100.0	15,841	100.0	111.3

As we see from Table 3, the first three groups of products represent about 94 percent of total production. The largest increase over 1978 occurred in the case of motor and primary gasoline (14.0 percent), while the smallest was for "other" products (2.1 percent), primary gasoline being omitted. But these products constitute only 6.1 percent of the petroleum refined. In terms of percentages the residual products had the largest share--41.3 percent in 1979 and 42.4 percent in 1978, but the growth of production was only 6.7 percent. Production of the so-called intermediate distillates increased 11.3 percent in 1979 as compared to 1978.

As we also see from Table 3, the shares of the various product groups in the petroleum refined changed only slightly between 1978 and 1979, except in the case of residual products. For instance, the figures were 20.5 percent and 20.0 percent, respectively, for motor and primary gasoline, 32.1 percent and 31.5 percent for intermediate distillates, and 41.3 percent and 42.4 percent for residual products. The share of all other products remained unchanged, i.e., 6.1 percent.

In addition to the factors already mentioned which influenced the yields of the refineries, perhaps the various growth rates were also affected to a certain degree by changes in the quality of the petroleum refined, the imported petroleum especially.

In the group of so-called "other" products 71,000 tons of motor oils, 29,000 basic oils and 69,000 tons of mineral lubricant greases were produced in 1979. In addition to these amounts, enterprises which prepare lubricant oil and greases by purchasing the necessary components produced 45,000 tons of motor oils, 49,000 tons of various types of industrial oils and 5,200 tons of a wide range of mineral lubricant greases in 1979.

During 1979 as well the refineries--as their permanent task--made considerable efforts to maintain the previously attained high quality of their products, taking care to meet the ever more stringent requirements of consumers, and they also strove in their operation to reduce to the greatest possible degree air, stream and marine pollution.

Energoinvest's refineries at Bosanski Brod and Modrica, and INA's refinery in Lendava, having completed all the organizational and financial preparations, undertook construction of new projects. Upon completion of facilities for primary refining of petroleum the refinery at Bosanski Brod will be able to refine 5.0 million tons of petroleum annually, and that at Lendava 2.0 million tons. Aside from these projects, facilities for secondary refining of petroleum will also be built. Projects of this kind are also being built at INA's refineries in Rijeka and Sisak and those of Naftagas in Novi Sad and Pancevo.

In late 1979 the Yugoslav petroleum pipeline was put into operation, connecting all our continental refineries with the terminal on the island of Krk.

This certainly is extremely important to our petroleum industry, since it will make it possible to deliver the petroleum uniformly and to reduce transportation costs.

II

Consumption of petroleum and of its products will be affected in 1980 by many factors which will tend to reduce this consumption as a consequence of ever more stringent conservation. This situation on the petroleum product market will naturally have an essential impact on the operation of the refineries as well. That is, the amount of petroleum imported this year will not depend on the needs of the refineries or the market, nor on the forecasts of the energy budget, which has not yet been adopted, but on the amount of foreign exchange which society has available to purchase imported petroleum.

At the end of last year, that is, before the recent considerable price rises of petroleum, government authorities and business entities agreed in principle to import no more than 14.5 million tons of petroleum in 1980. Taking into account domestic petroleum production at about 4.2 million tons, about 18.7 million tons would be available for refining. The refining of those amounts of petroleum and the importation of finished petroleum products under contracts set down in commodity lists would have covered all the country's needs for petroleum products, i.e., the needs of the domestic market, required exports and sufficient amounts for the bunker service. But after the rise in the price of petroleum in January, the Federal Committee for Energy and Industry prescribed a limit of 13.3 million tons on the importation of petroleum, suggesting a possible further decrease if the price of petroleum rises above the anticipated 15 percent, which will certainly be the case. In view of these circumstances it is, of course, difficult to estimate possible production in refineries. In any case the initial forecast of about 4.2 million tons of domestic petroleum and 14.5 million tons of imported petroleum to be refined, that is, a total of 18.5 million, cannot be achieved, but at best the maximum will be about 17.5 million tons. In this case the situation in 1980, compared to 1979, might be as shown in Table 4.

Table 4. Estimate of Petroleum Refining in 1980

Product	1979, Preliminary		1980, Estimate		Index
	10^3 t	%	10^3 t	%	
Domestic petroleum	4,081	25.8	4,200	25.2	102.9
Imported petroleum	11,760	74.2	13,300	74.8	113.1
Total for refining	15,841	100.0	17,500	100.0	110.5
Production for the market	14,906	94.1	15,12[illegible]	92.1	108.1
Motor gasoline	2,399	15.1	2,600	14.9	108.4
Jet fuel	341	2.2	400	2.3	117.3
Diesel fuel, household heating oil and extra-light heating oil	4,740	29.9	5,435	31.0	114.7
Furnace oil	5,045	31.8	4,800	27.4	114.9
Asphalt	740	4.7	820	4.7	110.8
Other products	1,641	10.4	2,065	11.8	124.6
Internal consumption	762	4.8	1,030	5.9	135.1
Processing loss	173	1.1	350	2.0	202.3

The figures in Table 4 can be taken only as an indication of possible proportions in the yields of the refineries, since the figures for 1979 are preliminary, and after all the relevant data are checked, there will inevitably have to be adjustments of certain figures. On the other hand, the figures on refining of petroleum in 1980 are indicative in nature, since the amounts of petroleum imported--as we have already mentioned--depend on the amount of foreign exchange available.

If the amount of petroleum refined in 1980 remains approximately the same as in 1979, this would inevitably have an adverse effect on certain sectors of the economy, industry and trade in particular, since other sources of energy--were they available in the necessary amounts--could not appropriately replace petroleum products, especially light and heavy fuels and miscellaneous lubricants.

Regardless of the difficulties in petroleum refining, the refineries will continue to build the capacities envisaged for secondary refining of petroleum, since at most refineries the planned increases in primary capacities have already been achieved. This is not the case at the refineries in Bosanski Brod and Lendava, where construction has just begun. The refinery in Skopje is nearing completion, and it will go into regular production toward the end of this year.

Table 5. Refinery Capacity in Yugoslavia, in millions of tons per year

Refinery	1975	1979	1980	After 1980
Bosanski Brod Refinery	2.5	2.5	2.5	5.0
Lendava Refinery	0.6	0.6	0.6	2.0
Novi Sad Refinery	0.6	1.4	1.4	1.4
Pancevo Refinery	1.4	5.5	5.5	5.5
Rijeka Refinery	4.5	8.0	8.0	8.0
Sisak Refinery	3.6	7.5	7.5	7.5
Skopje Refinery	--	--	--	2.5
Total	13.2	25.5	25.5	31.9

Table 6. Refinery Yields in the Period From 1976 to 1980, in 10^3 tons

Product	1976	1977	1978	1979, Preliminary	1980, Planned
Petroleum refined					
Domestic	3,880	3,868	3,983	4,081	4,200
Imported	7,901	9,967	10,245	11,760	13,300
Total	11,781	13,835	14,228	15,841	17,500
Chain index	108.1	117.4	102.9	111.3	110.5
Products obtained					
Motor gasoline	1,923	2,190	2,301	2,399	2,600
Jet fuel	325	330	299	341	400
Diesel fuel, household heating oil and extra-light heating oil	2,969	4,147	4,268	4,740	5,435
Furnace oil	3,975	4,559	4,638	5,045	4,800
Asphalt	391	537	635	740	820
Other products	1,197	1,012	1,213	1,641	2,065
Internal consumption	825	868	865	762	1,030
Processing loss	176	212	281	173	350

7045
CSO: 2800

YUGOSLAVIA

CONSUMPTION OF GAS, OIL DERIVATIVES, 1979

Zagreb NAFTA in Serbo-Croatian No 6, Jun 80 pp 295-298

[Article by Vojteh Brajcic, graduate economist, M.A. in economics, marketing director of the Marketing Sector of the Work Community of Joint Staff Services of INA-Commerce]

[Text] The principal characteristics of trends on the Yugoslav market of petroleum derivatives last year were, on the one hand, stagnation in the consumption of motor gasoline resulting from measures restricting consumption, whereby administrative measures restored equilibrium between supply and demand, and, on the other hand, a shortage of gas oils on the market because those same measures were not effective enough, a shortage which was especially acute in the last months of this past year.

The effectiveness of conservation measures pertaining to gasoline consumption, though less than the original official estimates when those measures were being adopted, is evident in the halting of the trend in the consumption of motor gasolines, which in recent years has increased at an annual rate between 9 and 11 percent. Since the measures restricting consumption took effect in late April, which means that they have affected consumption for only 8 months, that is, 73 percent of total annual consumption, the actual savings are 10 percent higher than these figures.

Gasoline consumption in the first 4 months of 1979 increased at a rate of 9 percent, while consumption in the other 8 months was 4.5 percent below that in the same period of 1978, from which it followed that the saving against anticipated consumption was about 13.5 percent, or about 315,000 tons of motor gasolines.

Aside from gas oils, there was also a shortage of other commodities on the market; the shortage of heavy fuel oil was not as great as in previous years because of the better supply resulting from technical considerations in the refining of the Yugoslav refineries, but after a long period of good supply, the market had a rather poor supply of antifreeze, and there were also difficulties in the supply of industrial oils and greases and other commodities.

During 1979 there was a major correction of prices of petroleum derivatives, which certainly had an impact on consumption, though their effects on gasoline consumption are clouded over by the restrictions on vehicle use we have mentioned ("even-odd").

The prices of gasoline were first increased on 27 April by 15 percent, from 9.15 to 10.50 dinars per liter of high-test, and then on 14 July there was another increase to 13.50 dinars, or 29 percent. The total increase over the "old" price was 39 percent. The weighted average price of high-test gasoline (Table 1) was 11.30 dinars during 1979 and was 55 percent higher than the average price in 1978 (7.28 dinars), or 3.55-fold higher than the price of gasoline in the last year before the crisis (3.18 dinars in 1973). At the same time the rate of inflation in Yugoslavia (1979/1978) is 22 percent, and the growth rate of personal incomes 20 percent. In the period from 1973 to 1979, inflation was 84 percent, and the rise of personal incomes 87 percent.

It follows that the real price of gasoline increased "only" 28 percent in 1979 and 90 percent in the 1973-1979 period.

Had there been no administrative intervention, this real price increase would certainly have diminished consumption about 10 percent, but since the effect of the administrative measures was greater, the influence of prices on consumption was not felt for all practical purposes.

Table 1. Nominal and Real Prices of Petroleum Derivatives in Yugoslavia in 1973-1979, in dinars

	Average Nominal Prices Per Liter						Average Real Price Per Liter		
Sales Prices	1978	1979	Index 79/78	1973	1979	Index 79/73	1979	Index 79/78	Index 79/73
1. Motor gasoline	7.28	11.30	155	3.18	11.30	355	6.11	125	192
2. Diesel fuel	4.65	7.98	172	1.69	7.98	472	4.32	139	256
3. Extra-light heating oil	2.97	4.48	151	1.40	4.48	320	2.44	122	17[illegible]
4. Furnace oil	1.72	2.65	154	0.69	2.65	384	1.44	124	209

The average prices of diesel fuel in 1979 were, however, considerably higher, all of 72 percent over the average price in 1978 (7.98 dinars as against 4.65 dinars), or a real increase of 34 percent, but because of the well-known low elasticity in Yugoslavia (especially in the public sector), they did not have any great impact on demand (2-3 percent at a maximum) (Table 1).

Average prices of household heating oil (which, however, is also consumed in industry and agriculture) increased 51 percent in 1979 over the previous year (4.48 dinars as against 2.97 dinars), or a real increase of 18 percent, which objectively could have reduced consumption by 3-4 percent.

When we know that in recent years the growth of consumption of gas oils has been 9-13 percent, when there were occasional shortages in the winter months, the new prices could objectively have reduced consumption by about 8-11 percent, which obviously was not enough since only about 7 percent more gas oils was offered on the market than in 1978. The estimate, then, is that the market had a shortage of at least 2-3 percent of total quantities, or about 100,000-150,000 tons of gas oils.

A more selective analysis of the market would certainly yield better results, but it would still be an open question as to how great an effect the restrictive administrative measures and diesel fuel conservation had in reducing consumption.

The average price of heavy fuel oil in 1979 was up 54 percent (2.65 dinars, as against 1.72 dinars in 1978), or a real increase of 20 percent. The impact of prices on consumption might have been 2-3 percent in real terms, which by and large did occur judging by the reduction of the growth rate of consumption from 10 percent, which is what it has been in recent years, to 8 percent, when the supply was by and large satisfactory, which was not the case in past years.

Average gasoline consumption per vehicle has in recent years approximated consumption recorded before the petroleum crisis, when it was 929 kg (1973), thereafter falling in 1974 to about 800 kg. It was about 870 kg in 1976 and 1977, and in 1978 it was about 827 kg. The measures restricting consumption in 1979 reduced that consumption to about 764 kg, or 8 percent. The average monthly consumption over the period of 5-7 months dropped from 72.7 tons in 1978 to 63.5 tons in 1979, or 13 percent.

The number of registered passenger cars increased considerably again in 1979. Passenger car production in 1979 amounted to 279,000 units. There were 67,000 imported, and 17,000 exported.

In 1979 9.8 million foreign vehicles crossed the border, which is a reduction of 31 percent from the 14.2 million 1 year previously. Foreign tourists probably had a particular impact here, since in 1979 their number dropped from 6,385,000 to 5,966,000, or 7 percent. There was a slightly smaller drop in the number of lodgings (4 percent) from the 35 million recorded in 1978 to 33.5 million in 1979. This also resulted in lower consumption of gasoline by foreign tourists, which according to our estimates is about 200,000 tons. Together with local border traffic, border traffic and transit, total sales to foreign nationals are estimated at about 380,000 tons, or 16 percent of total gasoline sales on the Yugoslav market.

In 1979 total gasoline sales were 2,329,000 tons, as against 2,334,571 tons in 1978.

In 1979 the number of trucks increased by 18,000 manufactured in domestic factories and 1,500 which were imported.

The number of tractors increased from 255,851 in 1978 to 296,825 in 1979, or an increase of 16 percent.

The activity of highway carriers in 1979 was 1 percent greater for bus transportation than a year earlier. Passenger traffic was 946 million, as against 935 million in 1978. In 1979 the trucking industry recorded a traffic of 17.6 billion ton-kilometers, which is 4 percent more than in 1978, when they recorded 16.9 billion ton-kilometers.

Diesel fuel sales in 1979 were affected by that context and the weak impact of the 8-percent price increase we have mentioned. Consumption was 3,005,000 tons as against 2,694,000 in 1978.

Consumption of extra-light heating oil rose 1 percent. Total consumption in 1979 was 4,802,000 tons of gas oils, as against the 4,470,000 tons recorded in 1978.

Consumption of residual fuel oil rose 10 percent. Total consumption was 7,058,000 tons, as against 6,391,000 tons in 1978. If internal refinery consumption of residual fuel oil is omitted, consumption was 6,373,000 tons as against 5,746,000 tons in 1978, which is also an increase of 10 percent.

More asphalt was also consumed in 1979 than in the previous year. A total of 785,000 tons, as against 643,000 tons in 1978, or an increase of 22 percent.

Motor oil sales were 114,000 tons, or an increase of 5 percent. The amount of motor oil relative to amounts of motor gasoline and diesel fuel is continuing to drop, and in 1978 amounted to only 2.1 percent, which approximates the usual percentages of the advanced countries (from 1.7 to 1.9 percent).

Consumption of industrial oils and greases was 256,000 tons, or an increase of 8 percent.

Jet fuel sales rose 8 percent from 318,000 tons to 345,000 tons, mainly thanks to the growth of domestic traffic. The unfavorable prices and also the shortage of this commodity had a considerable impact on the consumption of foreign airlines.

The shortage of liquefied gas on the domestic market was felt especially in the winter months of 1979. Total sales amounted to 413,000 tons, the same amount as in the previous year.

In 1979 the Yugoslav market consumed a total of 16,644,000 tons of derivatives, as against 15,323,795 tons in 1978, or an increase of 9 percent, which is certainly the lowest growth rate in recent years.

In the breakdown of consumption there has not been any essential change. The 42-percent share of furnace oil is the largest; it is somewhat higher than in 1978, when its share was 41.7 percent. The slightly better supply of this commodity on the domestic market certainly contributed to this. This share is still higher than the yield of the Yugoslav refineries, which has been about 32 percent in recent years. The difference was made up with imports, which amounted to about 1 million tons (Table 2).

Table 2. Imports of Derivatives in Yugoslavia

	In Thousands of Tons			In Millions of Dinars			Average Price Per Kilogram, in dinars		
Product	1978	1979	Index 79/78	1978	1979	Index 79/78	1978	1979	Index 79/78
Gas oil	219	106	48	504	532	106	2.30	5.02	218
Furnace oil	961	1,015	106	1,478	2,474	167	1.53	2.44	159

Source: INDEKS, No 2, 1980, Federal Bureau of Statistics, Belgrade.

The share of gas oils remained at the same 29-percent level, while the share of gasoline dropped from 15 to 14 percent.

In connection with gasolines we should mention that the share of regular is continuing to drop, so that its share in 1979 was only 24 percent, as against 25 percent a year earlier. It is obvious that the Yugoslav market is demanding gasoline with a higher octane number and that our refineries are already quite late in this regard.

The share of other products by and large remains unchanged.

Within the total consumption of petroleum derivatives on the Yugoslav market, 14,981,000 tons were used for energy. Nonenergy consumption amounted to 1,663,000 tons, or 9.8 percent of total consumption, as against 9 percent a year earlier.

Natural gas consumption on the Yugoslav market was limited by domestic production, which in 1979 amounted to 1,857 million cubic meters.

Last year's consumption was down 4 percent from 1978, when it was 1,935 million cubic meters (Table 3).

Table 3. Petroleum Derivative Sales in Yugoslavia, in thousands of tons*

Articles	1977	1978	1979	Index 79/78	Index 78/77	Breakdown 1979	Breakdown 1978
1. Primary gasoline	65	172	271	158	264	1.6	1.1
2. Aviation gasoline	17	16	18	114	94	0.1	0.1
3. Motor gasoline 86 octane	519	588	572	92	113	3.4	3.8
4. Motor gasoline 98 octane	1,600	1,746	1,757	101	109	10.6	11.4
Total motor gasolines	2,119	2,334	2,329	100	110	14.0	15.2
5. Special gasoline and white spirits	77	69	70	102	90	0.4	0.5
6. Kerosene and jet fuel	259	318	345	108	123	2.1	2.1
7. Diesel fuel	2,532	2,693	3,005	111	106	18.0	17.6
8. Extra-light and special	1,384	1,777	1,797	101	128	10.8	11.6
Total gas oils	3,916	4,470	4,802	107	114	28.8	29.2
9. Furnace oil	5,982	6,391	7,058	110	107	42.4	41.7
Not including internal refinery consumption	4,713	5,746	6,373	110	122	--	--
10. Asphalt	551	643	785	122	117	4.7	4.2
11. Motor oils	108	109	114	105	101	0.7	0.7
12. Industrial oils	135	226	247	109	193	1.5	1.5
13. Industrial greases	8	9	9	101	180	0.1	0.1
14. Paraffin	6	9	10	121	115	0.1	0.1
15. Gas	361	414	413	100	115	2.5	2.7
16. Other	106	144	173	120	116	1.0	0.9
Grand total	13,710	15,324	16,644	109	112	100.0	100.0
Energy consumption	12,654	13,944	14,981	106	110	90.0	91.0
Nonenergy consumption	1,056	1,380	1,663	117	131	10.0	9.0

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* The figures for 1978 have been revised and do not agree with the figures published in NAFTA, No 6, 1979, p 294.

The figures on sales are those of members of the trade communities Nafta of Zagreb and Petrolunion of Belgrade.

Notes: 1. Including internal refinery consumption and bunker supply of ships and aircraft.
2. Motor gasolines include 86-octane and 98-octane motor gasolines.

3. The group "gas oils" includes not only diesel fuel, but also extra-light household heating oil and special heating oil for industry.
4. "Furnace oil" includes light, medium and heavy furnace oil.
5. "Other derivatives" includes aromatics, petroleum coke, etc.

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DATA ON FARM ASSOCIATIONS, PENSIONS, PRODUCTION, 1979

Belgrade GLASNIK POLJOPRIVREDNE PROIZVODNJE, PRERADE I PLASMANA in Serbo-Croatian No 6, Jun 80 pp 7-12

[Report on the work of Yugoslav Cooperative Alliance in 1979]

[Excerpts] 1. Network of Organizations of Associated Farmers

In fulfillment of the goals set, during 1979 there was an expansion of the network of organizations of associated farmers, as shown by the figures in Table 1.

To be specific, the number of organizations of associated farmers increased by 324 during the year, but this was considerably less than the real needs and potential.

There are striking differences among the republics and autonomous provinces with respect to the trend in the number of organizations (Table 2).

In Bosnia-Hercegovina the number of cooperative organizations increased by 13, or 21 percent (from 61 to 74), and organizations of cooperators by 14, or 6.5 percent (from 216 to 230). In Montenegro the number of cooperatives remained the same (8), while the number of organizations of cooperators decreased by 1 (from 19 to 18). In Croatia there was a reduction of 3 in the number of cooperatives, or 1.5 percent (from 224 to 221), but there was a sizable increase in the number of organizations of cooperators, all of 113, or about 106 percent (from 105 to 218). In Macedonia there was a reduction of 4 in the number of cooperatives, or 5 percent (from 83 to 79), but the number of organizations of cooperators increased by 2, or 10 percent (from 19 to 21). In Slovenia the number of cooperatives remained the same (107), but the number of organizations of cooperators increased by 40, or 274 percent (from 23 to 63). In Serbia proper the number of cooperatives increased by 7, or 4 percent (from 179 to 186), while the number of organizations of cooperators increased by 128, or 40 percent (from 318 to 446), and there was an overall increase of 135 in the number of organizations of associated farmers, or 27 percent (from 497 to 632). In Vojvodina there are no farmer cooperatives. Only organizations of cooperators are in operation in that province, and during the year their number decreased by 2 (from 270 to 268). In Kosovo there was an increase of 11 in the number of cooperatives, or 37 percent (from 30 to 41), and an increase of 4 in the number of organizations of cooperators, or 18 percent (from 22 to 26).

Table 1

As of the end of 1979

Year	Cooperative	Basic Cooperative Organizations	Basic Organizations of Cooperators	Basic Organizations for Cooperation	Total
1978	514	176	412	580	1,682
1979	525	191	907	383	2,006
Difference	+11	+15	+495	-197	+324

Table 2. Survey of Organizations

	Farmer Cooperatives		Basic Cooperative Organizations		Basic Organizations of Cooperators		Basic Organizations for Cooperation		Total	
	1978	1979	1978	1979	1978	1979	1978	1979	1978	1979
Yugoslavia	514	525	176	191	412	909	578	383	1,682	2,006
Bosnia-Hercegovina	27	29	34	34	155	170	61	60	277	304
Montenegro	8	8	--	--	6	5	13	13	27	26
Croatia	212	215	12	6	7	130	98	88	329	439
Macedonia	83	79	--	--	19	20	--	1	102	100
Slovenia	43	45	62	1	23	63	--	--	128	170
Serbia proper	123	127	56	59	187	232	131	214	497	632
Kosovo	18	22	12	19	15	19	7	7	52	67
Vojvodina	--	--	--	--	--	270	268	--	270	268

The activity to expand the number of organizations of associated farmers, then, resulted during 1979 in an increase of 324 in the number of organizations, or 16 percent (from 1,682 to 2,006); the number of cooperatives and basic cooperative organizations increased by 24, or 3 percent (from 692 to 716), and the number of organizations of cooperators and organizations for cooperation by 298, or 30 percent (from 992 to 1,290).

The programmatic orientation toward expansion of the number of organizations of associated farmers was not altogether achieved. To be sure, the number of organizations of associated farmers did increase by about 20 percent during the year, but the number of these organizations decreased in the jurisdictions of three alliances.

The reports of the republic and provincial cooperative alliances in 1979 do not furnish sufficient elements for a fuller examination of these trends, though certain assessments are made.

The Cooperative Alliance of Bosnia-Hercegovina says that "the number of organizations of associated farmers is increasing continuously, but we should not be satisfied with the results achieved, however significant they might be."

The report of the Cooperative Alliance of Montenegro says that "this number of organizations of associated labor is insufficient to satisfactorily 'cover' the area of the republic."

In its analysis of performance of the program for formation of associations of private farmers and for transformation of existing organizations of associated farmers and creation of new ones the Cooperative Alliance of Serbia says: "The present number of organizations of private farmers and especially their territorial distribution are not close to meeting the needs of faster organization of private farmers along the lines of self-management."

The Cooperative Alliance of Macedonia says: "About 1,000 local communities are in operation in the rural areas of the republic, but there are only 79 cooperatives and 20 basic organizations of cooperators. In nine opstinas there is not a single cooperative, and in some opstinas there is one organization for 20, 30, 50 or even more villages."

The report from the annual assembly of the Cooperative Alliance of Vojvodina states: "Of the 271 basic organizations of associated labor for cooperation, after normative acts were reconciled and internal self-management relations brought into conformity with the Law, there were 265 OOK's [basic organization of cooperators] officially constituted in the province with 20 units of associated labor as components of the basic organizations. In addition 51 units of associated labor for development of relations with rural areas (units for cooperation) were formed, which on the whole provides a rather elaborate organization of basic self-managed economic entities at the first level of association. This number of basic organizational forms ensures a rather high degree of coverage of settlements with organizational forms and forms of association, and it can be said that a relatively suitable and broad basic organization has been created for further expansion of the process of formation of associations of private farmers through the transformation of basic organizations of associated labor for cooperation."

The Cooperative Alliance of Croatia says in its report for 1979: "... the number of organizations of associated farmers is showing a mild growth year after year, and we expect this trend to continue ..." and then "... the number of agricultural and specialized cooperatives is showing a decline ..., while the number of work organizations and basic organizations of cooperators has been increasing ... growth is also being recorded by other organizations of associated labor which are involved in cooperation...."

2. Formation of Farmer Associations

The point of departure in the program of activity to form associations of private farmers has been and is that a sizable portion of the population earns income by tilling the land. There are more than 3.4 million farmers in a labor force of nearly 9 million (according to the projection of the Long-Range Conception of Yugoslavia's Development in 1980).

They also have the most sizable potential for food production, and that production is lagging behind the real potential and needs, and their income is about 50 percent lower than that of working people employed in the socialized sector. Increasing the production of these farmers would improve their economic position and social welfare and at the same time fulfill the relevant public intentions concerning food production.

In late 1978 there were 249,923 members of farmer associations. In addition, private farmers also have cooperative relations in about 1 million cases (533,000 in plant production in 1978 and 442,000 in livestock production in 1977--figures taken from SGJ 1979 [Yugoslav Statistical Yearbook for 1979]. However, at the end of 1979 there were about 225,000 members of farmer associations, or 10 percent fewer than in the previous year, while there were about 1,055,000 cooperators, or about 5.5 percent more than in 1978. According to these data, in 1979 there were nevertheless about 32,000 more private farmers cooperating with the socialized sector than in 1978.

There is an insufficiency of analytical data and sources concerning the number of associated farmers. Table 3 shows the trend in the number of associated farmers according to the available data.

Table 3

	1978	1979	Difference
Bosnia-Hercegovina	24,795	27,000	2,205
Montenegro	410	421	11
Croatia	39,799	38.672	-1,127
Macedonia	8,000	8,000	--
Slovenia	46,586	46,586	--
Serbia	76,126	76,877	751
Vojvodina	46,000	19,215	-25,785
Kosovo	7,209	8,670	1,461
Total	247,920	225,000	-22,923

3. Old-Age and Disability Insurance of Private Farmers

Along with the work to increase the number of associated farmers, activity has also been conducted to provide pensions to associated farmers. It is estimated that pension coverage of private farmers was 18,768 in 1978 and 84,727 in 1979.

The report of the Cooperative Alliance of Bosnia-Hercegovina says: "After introduction of full medical insurance of private farmers, the Law on Old-Age and Disability Insurance also established the rights of private farmers in the fields of old-age and disability insurance, which is a further incentive for private farmers to organize along the lines of self-management and establish relations in the system of associated labor." And it goes on: "However, the Law on Diability and Old-Age Insurance has not been fully implemented even after a full year since it took effect; that is, to this day not a single member of a farmer association is covered by mandatory insurance."

The Cooperative Alliance of Montenegro states in its report that fewer than 1 percent of farm households belong to associations in Montenegro and that about 25 percent participate in various forms of collaboration. Private farmers in all communities are interested in belonging to an association and in collaboration, but a large number of farmers are still unfamiliar with the goals and forms of association.

In its analysis the Cooperative Alliance of Serbia states that at the end of 1979 there were 76,877 members of farmer associations, representing 12.2 percent of farmer households, while more than 300,000 farmers engage in occasional collaboration. And it goes on ... "so far 15,700 members of farmer associations have declared themselves in favor of insurance, while farmers over age 50 do not want old-age and disability insurance," and then further: "The processes of forming farmer associations have slowed down considerably, especially by comparison with 1976 and 1977, and in some communities utter stagnation has set in."

While the Cooperative Alliance of Vojvodina does not offer an assessment of this situation, the Cooperative Alliance of Croatia states: "Our expectations that the number of associated farmers would drop after the organization and enactments were brought into conformity with the Law on Farmer Associations have by and large been borne out ..." and further ... "the campaign to form farmer associations has not been widely conducted by sociopolitical organizations, opstinas and local communities."

Introduction of the system of disability and old-age insurance of private farmers has been at the center of attention of a majority of cooperative alliances. This is in fact indicated by the figures in Table 4.

Slovenia has introduced mandatory old-age insurance of private farmers, and voluntary insurance in the framework of worker insurance for associated farmers.

Table 4

	1978	1979	Difference
Bosnia-Hercegovina	--	--	--
Montenegro	--	185	185
Croatia	166	581	415
Macedonia	--	19,000	19,000
Slovenia	8,170	46,800	42,630
Serbia	9,814	15,443	5,629
Kosovo	--	--	--
Vojvodina	618	2,718	2,100
Total	18,768	84,727	65,959

Since about 53,000 households in Slovenia earn income from farming and since about 70,000 mixed households [income from both farming and nonfarm activities] have not in the past been covered by disability and old-age protection, pension coverage of about 46,800 private farmers represents about 90 percent, which is quite good.

Macedonia has instituted mandatory insurance of associated farmers as a part of worker insurance, and the 19,000 insureds enrolled during 1979 alone represent an important result, though this is only 20 percent of the number of so-called "strictly" farm households (1971 = 96,000). In any case, mandatory pension coverage of heads of farm households is being prepared.

We should emphasize that often the concept of the cooperative and the organization of cooperators is equated with an organization of associated labor. The constitution and the Law on Associated Labor stress the difference and state that "in principle" and "basically" failure to distinguish them causes difficulties in forming the new organizations, cooperatives especially. In any case, except in Slovenia little use has been made of what are called the other forms of association. In Slovenia there are about 3,500 production communities in operation with over 30,000 members.

As for use of the term "associated," there is no uniform criterion as to what is meant by this. The usual tendency is for "associated" to imply the status of a worker in the employment relation. That is how there come to be 225,000 associated farmers (Table 3), but in Montenegro, for example, there are 421. However, it is a fact that private farmers with firm contracts are producing all the raw material for the tobacco industry. It is evident from the reports that 3,160 private farmers are using capital on the basis of the interbank agreement, 71 on the basis of funds from the International Bank and 7,240 on the basis of the Program of Reserves in the Form of Livestock. The pattern is the same in the other republics and provinces.

There is a similar situation with use of the term "cooperator." The statistics show stagnation or reduction of their number. However, it is a fact that the land of private farmers is being cultivated better and better with up-to-date equipment, and more and more manufactured fertilizers and quality seed which the farmers purchase are being used. Private farmers possess sizable portion of agricultural machinery.

About 170,000 private farmers are producing tobacco and have firm relations with the tobacco industry.

That is why about 300,000 private farmers, or more than 15 percent, are members of associations, but certainly more than 70 percent, or about 2 million farm households, are involved in various forms of production collaboration, though the statistics show about 1 million (only those involved in credit relations).

4. Production Results

The cooperative alliances of the republics and provinces have emphatically oriented their activity toward more efficient utilization of productive resources in agriculture, especially on the farms of associated farmers. Increasing production on private farms is one of the conditions for improving the socioeconomic position of private farmers, but it is also one of the important social goals of the country's development.

By comparison with 1978 production results last year, 1979, were more favorable. Yields of the principal crops illustrate this (Table 5).

Table 5

In quintals per hectare

	1978			1979		
Crop	Socialized Sector	Private Sector	Total (average)	Socialized Sector	Private Sector	Total (average)
Wheat	42.7	30.0	31.3	41.1	25.1	29.3
Corn	58.7	31.2	35.6	69.1	42.0	45.0
Sugar beets	428.0	387.0	408.0	442.0	378.0	425.0
Sunflowers	14.9	13.3	14.0	21.7	19.3	20.4

The yields of the most important crops are growing, but there is still a large difference in yield between the socialized and private sectors. The differences in yields are all the greater when the crop tends to be grown for consumption on the farm.

There are quite striking differences in yields when we look at the figures for the republics and provinces in 1979 (Table 6).

Table 6

Republics and Provinces	Socialized Sector	Private Sector	Socialized Sector	Private Sector
	Wheat		Corn	
Bosnia-Hercegovina	38.4	17.9	48.7	26.2
Montenegro	24.1	17.5	—	19.8
Croatia	48.6	23.8	67.2	41.4
Macedonia	31.3	21.5	33.9	20.7
Slovenia	37.6	23.7	62.1	37.2
Serbia	41.0	26.1	61.1	38.4
Kosovo	33.4	25.3	31.2	25.1
Vojvodina	40.4	34.4	73.5	61.6
Yugoslavia	41.1	25.1	69.1	42.0
	Sugar beets		Sunflowers	
Bosnia-Hercegovina	386	310	17.2	17.0
Montenegro	--	--	--	--
Croatia	456	443	24.6	20.2
Macedonia	394	310	15.6	10.0
Slovenia	442	401	--	9.7
Serbia	498	322	19.8	17.1
Kosovo	188	330	17.2	17.0
Vojvodina	440	399	22.6	20.6
Yugoslavia	442	378	21.7	19.3

Wheat yields on private farms fell short of yields in the socialized sector 54 percent in Bosnia-Hercegovina, 28 percent in Montenegro, 51 percent in Croatia, 32 percent in Macedonia, 37 percent in Slovenia, 37 percent in Serbia, 25 percent in Kosovo and 15 percent in Vojvodina.

Yields in the production of corn were 46 percent lower in Bosnia-Hercegovina, 39 percent in Croatia, 39 percent in Macedonia, 40 percent in Slovenia, 38 percent in Serbia, 20 percent in Kosovo and 17 percent in Vojvodina.

Yields in production of sugar beets were 20 percent lower in Bosnia-Hercegovina, 3 percent in Croatia, 21 percent in Macedonia, 11 percent in Slovenia, and 36 percent in Serbia, while in Kosovo they were 75 percent higher than in the socialized sector, and in Vojvodina they were 10 percent lower.

In Bosnia-Hercegovina sunflower yields were 1 percent lower in the private sector, 18 percent in Croatia, 36 percent in Macedonia, 11 percent in Serbia, 1 percent in Kosovo and 9 percent in Vojvodina.

In 1978 average milk production per dairy cow was 1,471 liters.

By comparison with the socialized sector, milk production per dairy cow was 73 percent lower in the private sector (4,449 liters in the socialized sector and 1,200 liters in the private sector). The differences were still more pronounced in the survey by republics and provinces, as can be seen from the following figures:

In Bosnia-Hercegovina milk production per dairy cow was 74 percent lower in the private sector than in the socialized sector (1,022:4,004), 82 percent lower in Montenegro (690:3,758), 70 percent in Croatia (1,504:5,070), 89 percent in Macedonia (403:3,806), 66 percent in Slovenia (1,857:5,465), 76 percent in Serbia (1,083:4,617), 71 percent in Kosovo (946:3,270), and 49 percent in Vojvodina (2,068:4,041).

Animal husbandry is one of the important branches of agriculture, and most of the livestock population is on private farms. The present status of the livestock population is shown in Table 7.

Table 7

In thousands of head

Types and Categories of Livestock	Total	Socialized Sector		Private Sector	
		Number	%	Number	%
Cattle--total	5,643	413	7.1	5,230	92.9
Cows	3,142	93	29.6	3,049	70.4
Hogs--total	7,290	1,197	10.6	6,093	89.4
Sows	1,285	94	7.3	1,191	92.7
Sheep	7,514	245	3.2	7,269	96.8
Poultry	60,399	11,813	19.3	42,286	80.7
Horses	759	(mainly on private farms)			

These differences in the production of milk per cow and the number of head of livestock indicate a large potential in the private sector which can be utilized more fully only through better organization.

Since the private sector possesses 92.9 percent of the cattle population and has a share of 78.3 percent in production of beef, possesses 92.7 percent of the sows, but has a share of 78.2 percent in pork production, and possesses 80.7 percent of the poultry, but has a share of 67.5 percent in production of poultry meat, it is clear that there is an inestimable unused potential in the private sector (Table 8).

Production results in 1979 did not achieve the goals set in the Agreement on the Bases of the Social Plan for Development of the Agroindustrial Complex From 1976 to 1980 (Table 9).

Table 8. Production of Meat, Milk and Eggs

Products	1978	1979*	1974/1975, % Socialized Sector	1974/1975, % Private Sector
Beef (thousands of tons)	344	340	21.7	78.3
Pork (thousands of tons)	499	465	21.8	78.2
Lamb and mutton (thousands of tons)	62	61	3.9	96.1
Poultry meat (thousands of tons)	254	275	32.5	67.5
Other meat (thousands of tons)	97	89	--	--
Total	1,256	1,230	21.3	78.7
Milk (thousands of liters)	4,148	4,230	--	--
Eggs (hundreds of thousands of eggs)	4,062	4,110	--	--

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* Estimate by the Federal Bureau for Social Planning for 1979.

Table 9

In thousands of tons

Production	1979	Planned for 1980	%
Wheat	4,465	6,000	74.4
Corn	10,071	10,700	91.3
Sugar beets	5,950	8,730	67.9
Sunflowers	524	695	75.4
Meat (estimate)	1,230	1,210	101.0
Milk (1978)	4,008	4,571	87.4

The relation between actual production and the targets set in the Agreement for wheat was 59.6 percent in Bosnia-Hercegovina (298:500), 56.2 percent in Montenegro (844:1,500), 69.4 percent in Croatia (1,041.6:1,500), 87 percent in Macedonia (278:320), 67.7 percent in Slovenia (125.5:185), 82.2 percent in Serbia (1,234:1,500), 88 percent in Kosovo (246:280) and 73.4 percent in Vojvodina (1,242:1,700).

The level of fulfillment of the goals which were set in corn production was as follows: 75.9 percent in Bosnia-Hercegovina (607:800), 78.2 percent in Montenegro (15.6:20), 87.4 percent in Croatia (2,230:2,550), 61 percent in Macedonia (92:150), 80.5 percent in Slovenia (228:270), 84 percent in Serbia (2,570:3,060), 88.3 percent in Kosovo (265:300) and 107 percent in Vojvodina (3,838:3,550).

In corn production, then, only Vojvodina achieved the goal set in the Agreement on Development of the Agroindustrial Complex.

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BRIEFS

LENGTH OF STUDY TIME--In advanced [university-level] schools 24 percent of the students graduate in 5 years, 22 percent in 6 years, 17 percent in 7 years, and 25 percent in 8 or more years. The expenditures of the advanced school system are increasing faster than the national income. In 1970 they amounted to 0.79 percent of the national income, while in 1978 they amounted to 0.99 percent. Considering the length of study and cost increases, how much does a student cost, on the average? The answer is 31,236.80 dinars. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 16 Jul 80 p 2]

REDUCED CAR PRODUCTION--The "Crvena zastava" plants have produced 103,129 passenger cars in the first 6 months of this year, or 7 percent less than the revised plan for this year which called for 234,000 cars. This is the result of irregular deliveries of assembly-line parts, especially motors. However, the so-called supplemental program which "Crvena zastava" has in cooperation with producers in the USSR, Poland, and Italy overfulfilled its plan in the first half of this year by supplying the market with 25,783 cars or 3,615 more than planned. Also, 6,946 trucks were produced or 99 percent of the 6-month plan. [Excerpt] [Belgrade BORBA in Serbo-Croatian 9 Jul 80 p 14]

OIL REFINERY PROBLEMS--The change in the rate of the dinar has burdened domestic refineries with about 56 billion dinars (20 billion dinars of which falls on the INA (Oil Industry) SOUR (complex organization of associated work in Zagreb), although the recently approved higher oil derivative prices have partly compensated (90 percent, to be exact) for the cost of processing. From 11 July to the end of the year refineries will get about 18.5 billion dinars or only 41 percent of this increase in the net refinery prices of oil derivatives. Less than two-thirds of the funds needed to meet losses of refineries has been approved. This amounts to about 13.6 billion dinars which was asked of the FEC (Federal Executive Council) by the oil industry the end of June. The INA firm [mentioned above] will import only 11.5 million tons of crude oil this year, so refineries will operate at reduced capacity which will lead to a fall in productivity and higher processing costs, but especially to difficulties in supplying the market; there are already problems in gas oil, jet fuel, diesel fuel, and light household fuel supplies, and reduced production of basic gasolines is also possible. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 24 Jul 80 p 1] socialized agriculture--At the end of 1979 there were 2,946 agricultural work organizations and agricultural cooperatives registered in Yugoslavia, which is a 2-percent increase over 1978. The largest increase in the number of newly formed organizations was in Slovenia (41 percent increase). A total of 198,060 workers were employed in agricultural organizations last year, about 21,000 of whom were specialists with a higher-than-secondary school education. These organizations held more than 2.3 million hectares of land. The land area increased by 14,000 hectares over 1978 (including 9,340 hectares bought from farmers and 4,128 hectares of new area). Also last year, 856,000 private farmers were cooperating with agricultural organizations, or 3 percent less than in 1978. [Excerpt] [Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 30 Jun 80 p 38]

PLANNED CONSTRUCTION IN KOSOVO--Within the framework of the obligations undertaken by republics and the Province of Vojvodina to build at least one facility [each] in Kosovo this year, discussions have been held with representatives of the Zenica Combine in Bosnia-Hercegovina on a program to produce finished construction iron in a facility to be located in Podujevo, one of the most undeveloped Kosovo opstinas where only about 1,200 of the 70,000 inhabitants are employed in the economy. Work on the new factory is expected to begin in the fall and will cost 350 million dinars, according to initial estimates; it will employ 250 workers in 2 shifts. This factory would have an annual production of 45,000 tons of net and welded fittings and girders, and total annual revenue would be 520 million dinars. Discussions are underway with Macedonian business people on building a factory to produce aluminum facade structures in Vucitrn, also one of the undeveloped areas in Kosovo; this factory would be built in cooperation with the "Kosovo" construction work organization in Vucitrn with an investment of 135 million dinars. Macedonia has offered to finance the entire program which should be completed in 12 months. The factory would employ 170 workers and earn an annual revenue of 180 million dinars. Slovenia has offered to build the "Prebold" Textile Industry to produce jeans, with an investment of 400 million dinars; while the MIN plant in Nis, Serbia, is offering to build a plant to produce pumps for the chemical and the fuel and power industries, valued at 200 million dinars. It would employ 320 workers and have an annual revenue of 300 million dinars. If agreement is reached, Croatia will build a facility to produce refrigeration equipment, with an investment of 300 million dinars; it would employ 350 workers. The "Obod" plant in Montenegro has offered production of lighting equipment, while Vojvodina will build either a plant to produce salicylic acid or a cement-production facility. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 16 Jul 80 p 2]

CROATIAN PROJECTS IN KOSOVO--In discussing preparations being made to build projects as agreed upon by republics and provinces and the obligations to build such projects in Kosovo in 1980, the permanent council for inter-republic economic cooperation in the Croatian Economic Chamber stressed the need to create the conditions for building such facilities and the need to stimulate work organizations more strongly to this end. The "Djuro

Djakovic" SOUR (complex organization of associated work) in Slavonski Brod has offered to build a plant to produce 7,500 tons of cooling towers and parts for cooling installations for electric power plants; the value of this investment is about 300 million dinars, and about 350 workers would be employed in the new plant. The SOUR "Podravka" plant in Koprivnica, together with the "Farmakos" plant in Prizren, intends to build a plant to produce soap with an investment of about 50 million dinars. The plant would employ up to 70 workers and construction is to begin soon. The "Podravka" plant is also working on agreement for a joint program with "Agrokosovo" in Pristina to produce processed meat; while the TPK (Steam Boiler Plant) in Zagreb is studying the possibility of building a plant from its production program. The first agreement on building a plant to maintain, assemble, and repair boilers has been signed with the "Metal" enterprise in Prizren; this plant would later produce parts and would finish smaller boilers for power plants and heating plants. The "Jugoturbine" plant in Karlovac is examining the possibility of building a facility with another plant. Also, the Croatian electric power industry will invest 392 billion dinars in the next medium-term period to build electric power facilities in Kosovo. In September a meeting will be held of representatives of the machinebuilding and electric power industries to detail the joint programs of construction in Kosovo. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 17 Jul 80 p 8]

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